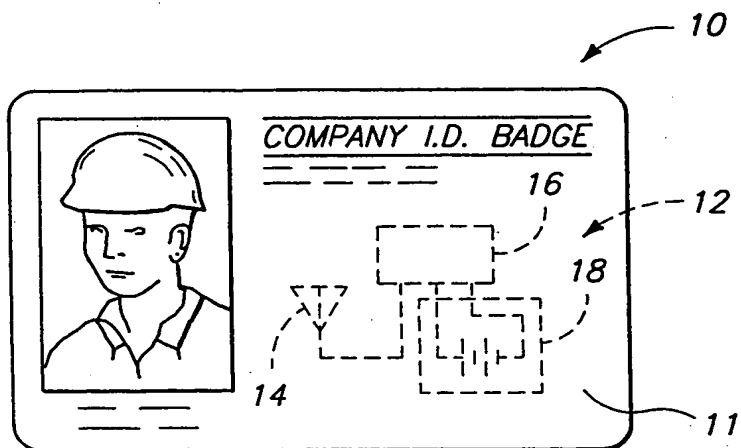


II II II II



Ex 20

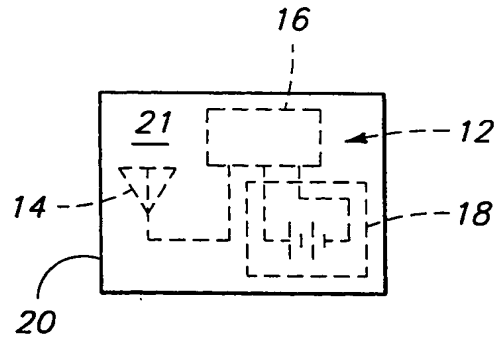


FIG. 1

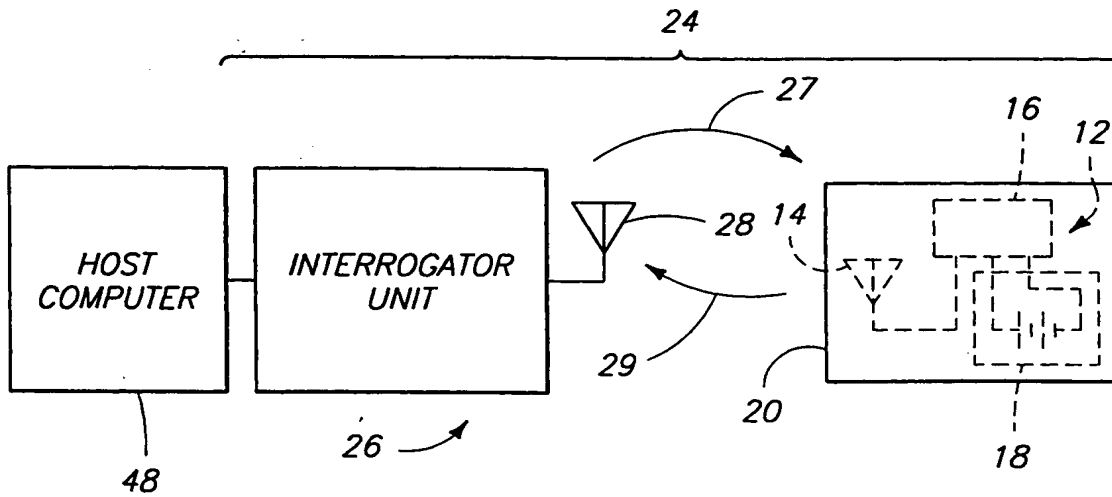


FIG. 2

FIG. 1

FIG. 1 is a block diagram of a radio receiver.

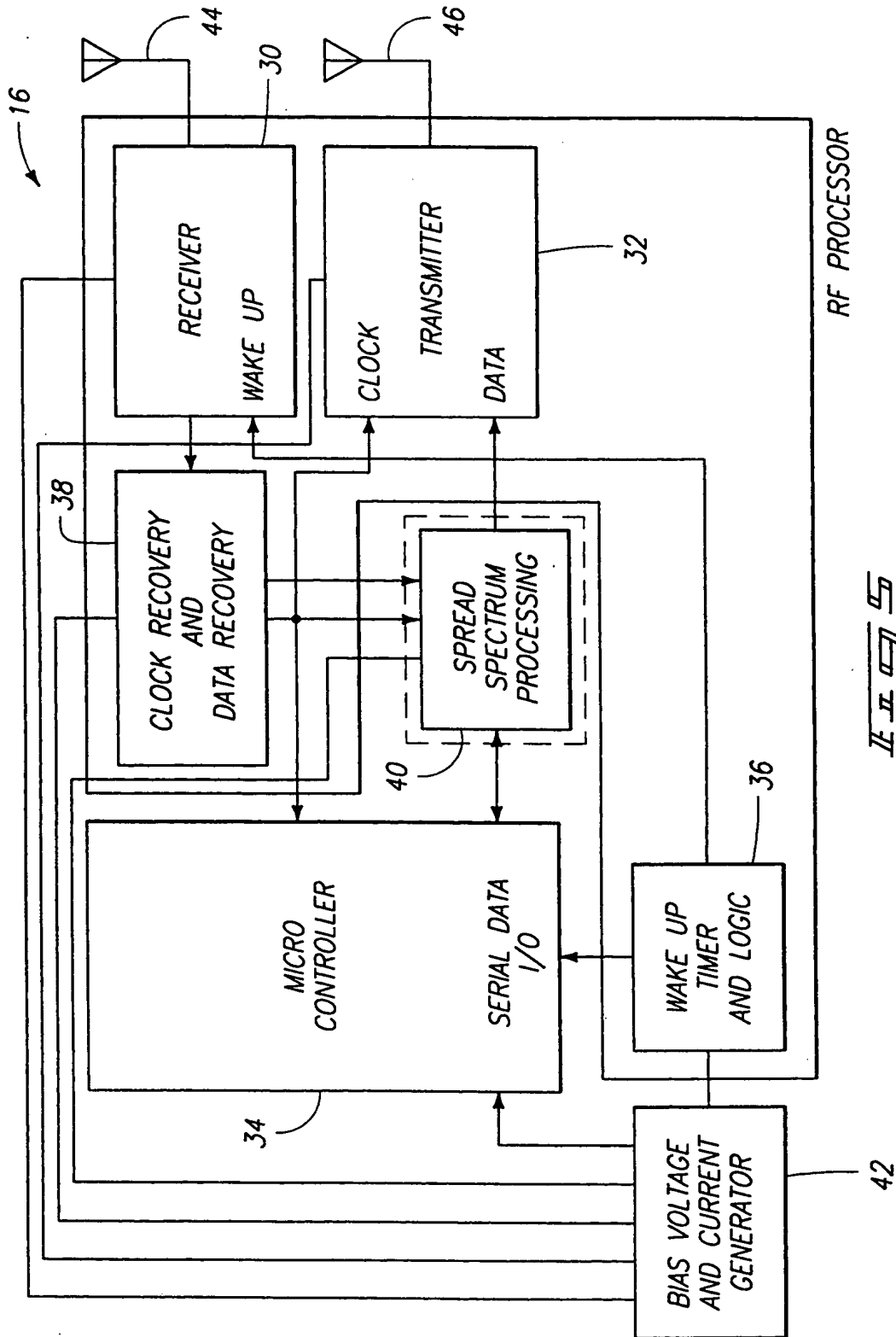
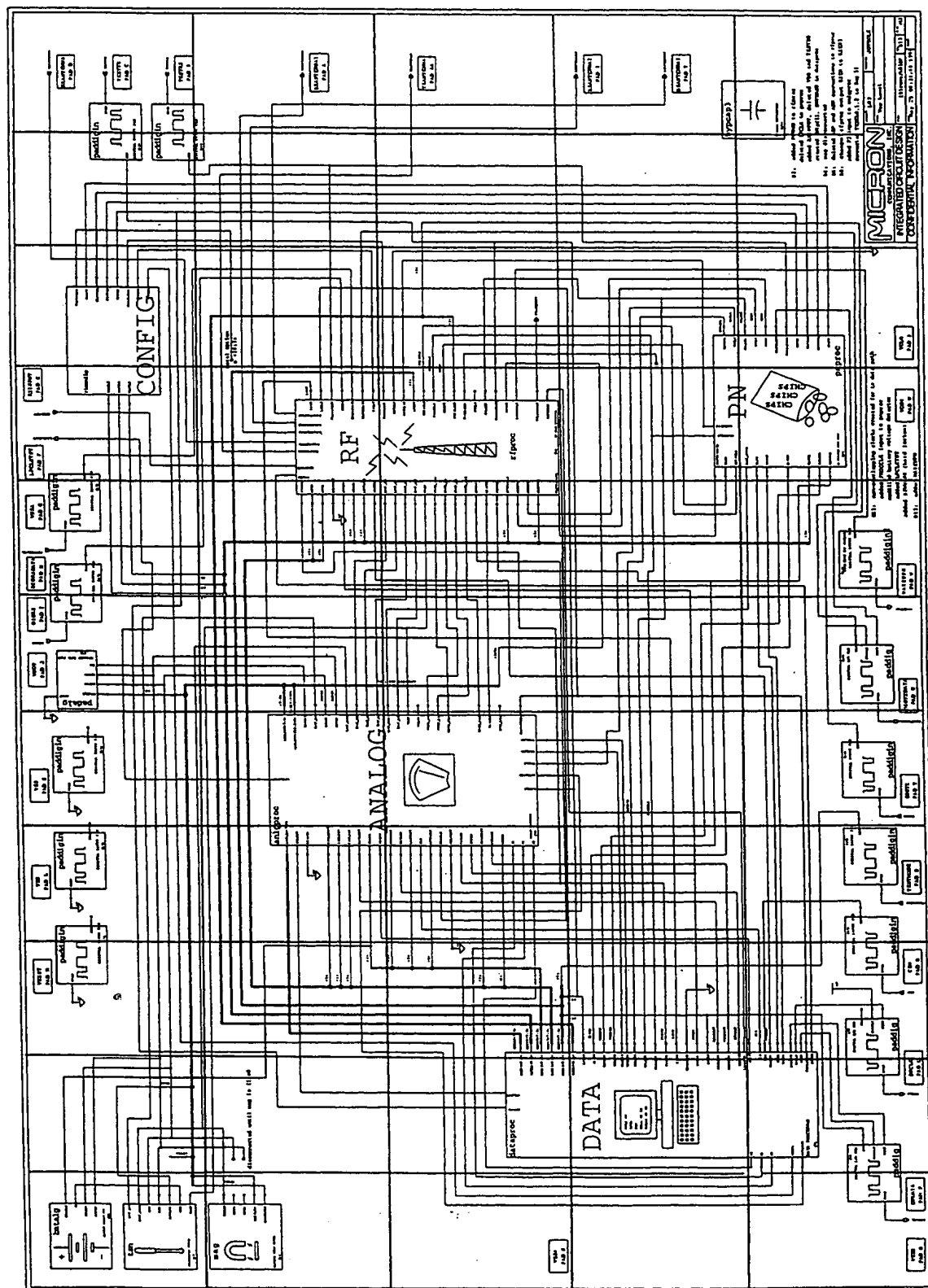


FIG. 2 is a block diagram of a radio receiver.

6AA	6AB	6AC	6AD	6AE	6AF	6AG	6AH	6AI	6AJ	6AK
6BA	6BB	6BC	6BD	6BE	6BF	6BG	6BH	6BI	6BJ	6BK
6CA	6CB	6CC	6CD	6CE	6CF	6CG	6CH	6CI	6CJ	6CK
6DA	6DB	6DC	6DD	6DE	6DF	6DG	6DH	6DI	6DJ	6DK
6EA	6EB	6EC	6ED	6EE	6EF	6EG	6EH	6EI	6EJ	6EK



FIG. 6AA-EK



# THE FUTURE OF THE FUTURE

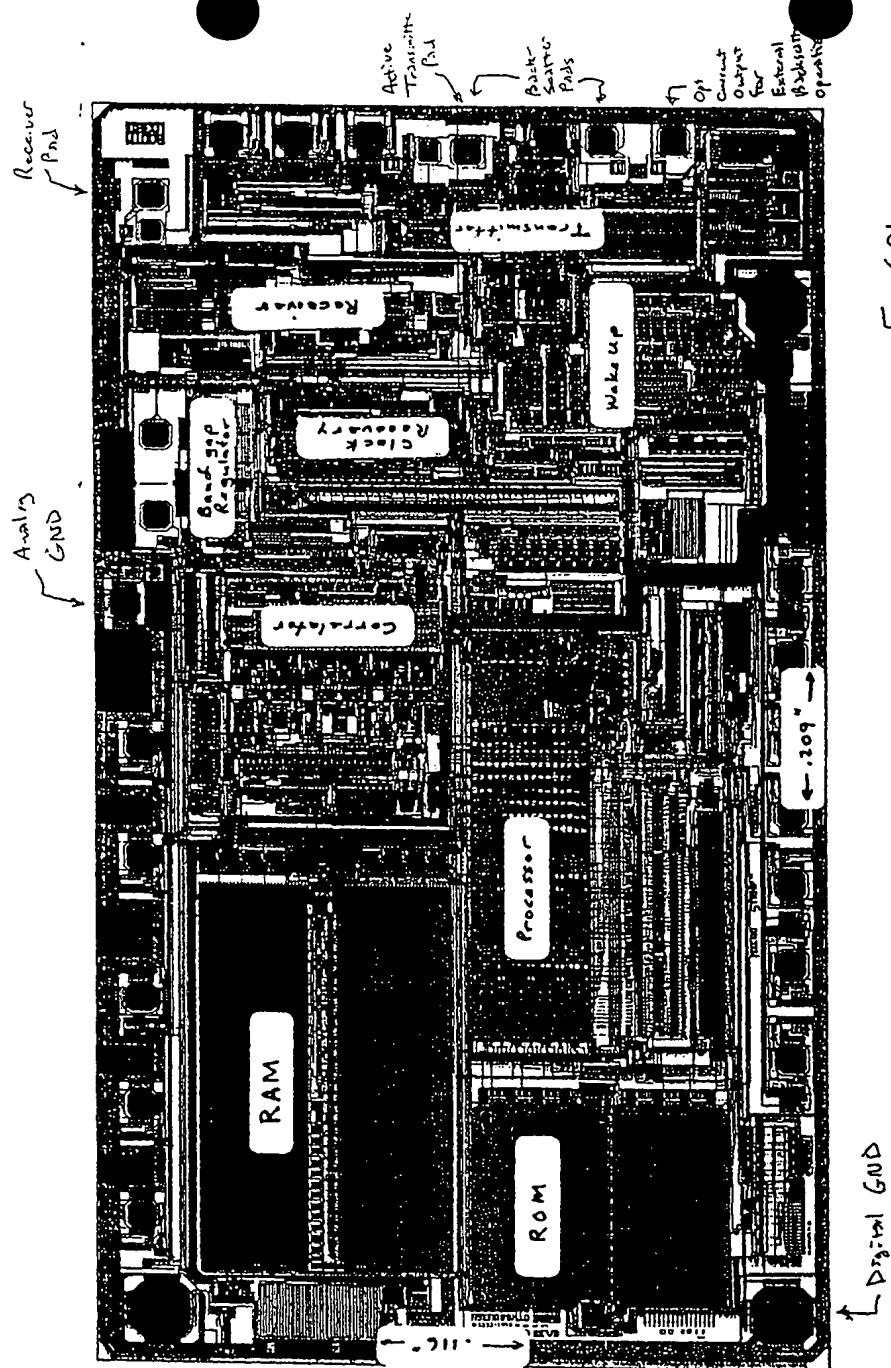
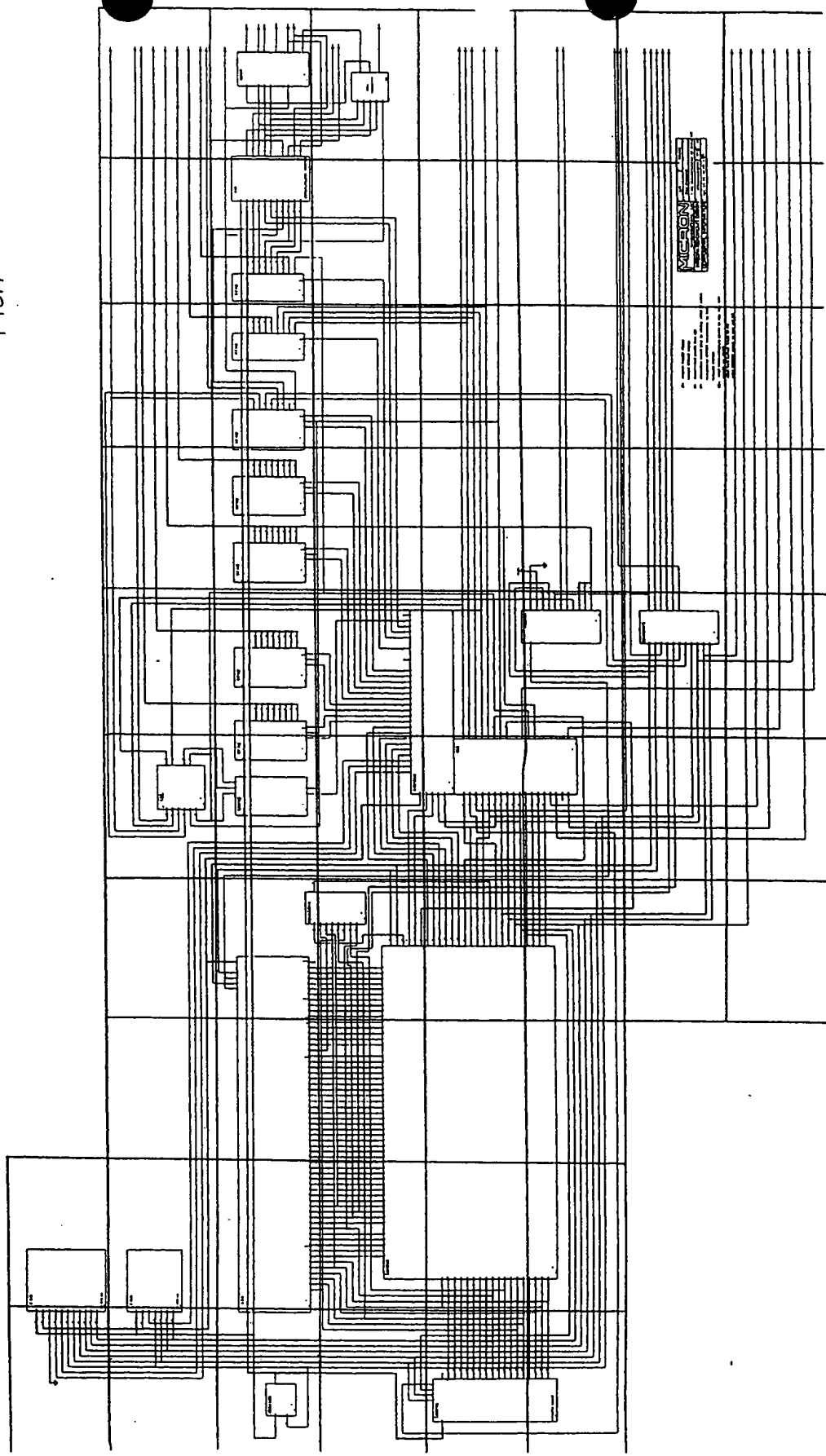


Fig. 6.01

$$\frac{\pi}{\pi + \pi}$$

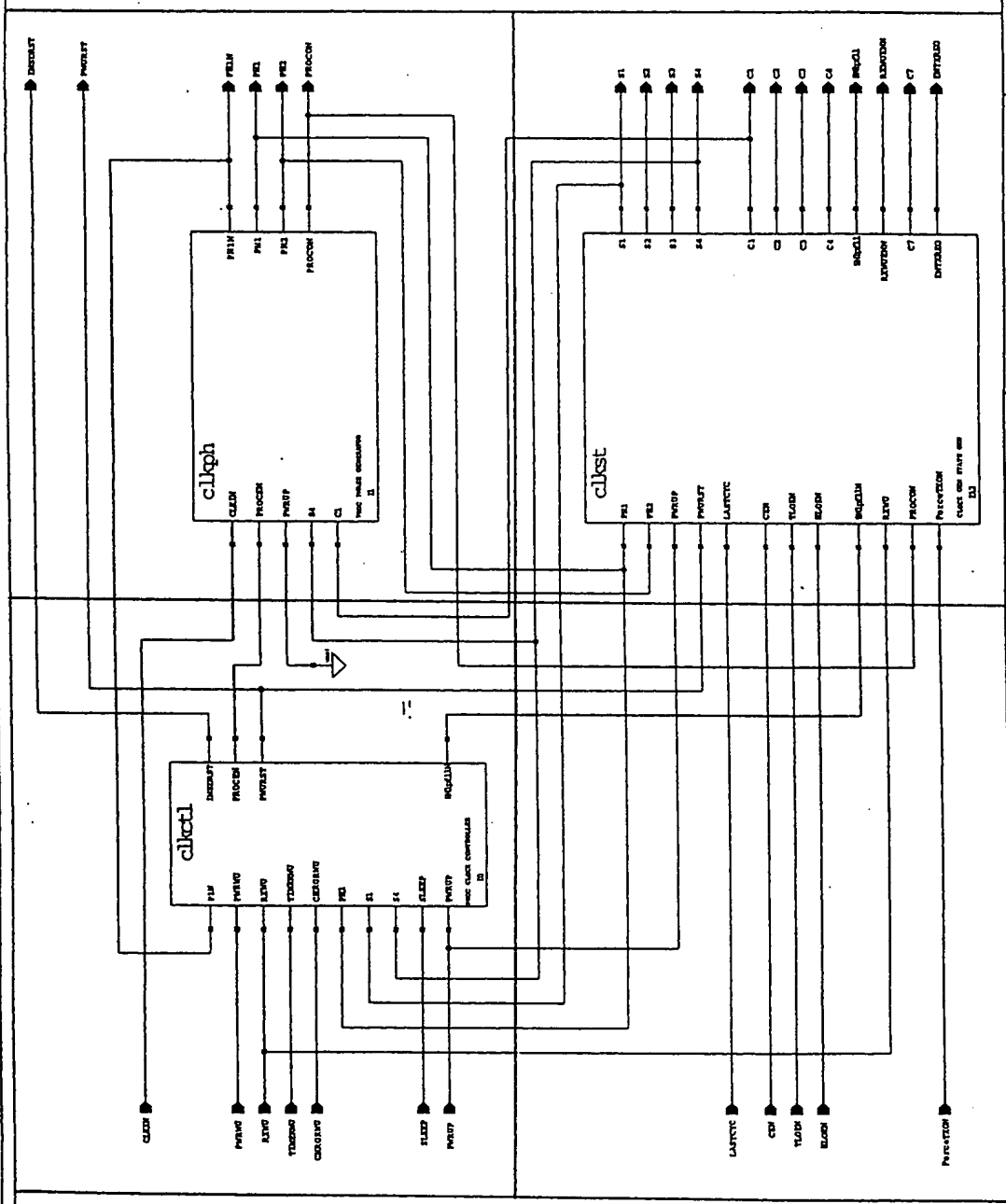
Fig. 7



7.01AA	7.01AB
7.01BA	7.01BB

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

Fig. 7.01



**MICRON**  
 COMMUNICATIONS, INC.  
 INTEGRATED CIRCUIT DESIGN  
 CONFIDENTIAL INFORMATION

E2: created ENUPRLL signal  
 added ENTPRREG logic  
 B11: added hard lockout to clkst

|                         |                   |
|-------------------------|-------------------|
| PROJECT: L03            | REVISION: Rev2011 |
| 2-Phase/4-State/8-Cycle | 101revs/clk       |
| B11                     | Rev. n11          |
| Apr 13 09:58:52 1996    | Rev. n11          |



И. П. П. П. П. П. П.

И. П. П. П. П. П. П.

The diagram illustrates the internal logic of a Processor Clock Controller. It features several input signals at the top: PPSW (pin 14), PPSW (pin 15), PPSW (pin 16), PPSW (pin 17), PPSW (pin 18), PPSW (pin 19), PPSW (pin 20), PPSW (pin 21), PPSW (pin 22), PPSW (pin 23), PPSW (pin 24), PPSW (pin 25), PPSW (pin 26), PPSW (pin 27), PPSW (pin 28), PPSW (pin 29), PPSW (pin 30), PPSW (pin 31), PPSW (pin 32), PPSW (pin 33), PPSW (pin 34), PPSW (pin 35), PPSW (pin 36), PPSW (pin 37), PPSW (pin 38), PPSW (pin 39), PPSW (pin 40), PPSW (pin 41), PPSW (pin 42), PPSW (pin 43), PPSW (pin 44), PPSW (pin 45), PPSW (pin 46), PPSW (pin 47), PPSW (pin 48), PPSW (pin 49), PPSW (pin 50), PPSW (pin 51), PPSW (pin 52), PPSW (pin 53), PPSW (pin 54), PPSW (pin 55), PPSW (pin 56), PPSW (pin 57), PPSW (pin 58), PPSW (pin 59), PPSW (pin 60), PPSW (pin 61), PPSW (pin 62), PPSW (pin 63), PPSW (pin 64), PPSW (pin 65), PPSW (pin 66), PPSW (pin 67), PPSW (pin 68), PPSW (pin 69), PPSW (pin 70), PPSW (pin 71), PPSW (pin 72), PPSW (pin 73), PPSW (pin 74), PPSW (pin 75), PPSW (pin 76), PPSW (pin 77), PPSW (pin 78), PPSW (pin 79), PPSW (pin 80), PPSW (pin 81), PPSW (pin 82), PPSW (pin 83), PPSW (pin 84), PPSW (pin 85), PPSW (pin 86), PPSW (pin 87), PPSW (pin 88), PPSW (pin 89), PPSW (pin 90), PPSW (pin 91), PPSW (pin 92), PPSW (pin 93), PPSW (pin 94), PPSW (pin 95), PPSW (pin 96), PPSW (pin 97), PPSW (pin 98), PPSW (pin 99), PPSW (pin 100). The logic consists of multiple AND gates (e.g., 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100), OR gates (e.g., 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100), NOT gates (e.g., 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100), NAND gates (e.g., 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100), NOR gates (e.g., 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100), and D flip-flops (e.g., 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100). The diagram is labeled with component numbers and pin numbers.

Fig. 7.0101

|                                   |                   |                          |  |
|-----------------------------------|-------------------|--------------------------|--|
| MICRON                            |                   | COMMUNICATIONS, INC.     |  |
| INTEGRATED CIRCUIT DESIGN         |                   | CONFIDENTIAL INFORMATION |  |
| PROJECT: L03                      | DESIGNED: R000011 |                          |  |
| Title: Processor Clock Controller |                   |                          |  |
| DATE: 10/26/84                    | BY: B2            | REV: 001                 |  |
| DATE: Jul 26 11:15:27 1994        |                   |                          |  |

B2: created R000011 signal

|                                  |                      |                             |                |
|----------------------------------|----------------------|-----------------------------|----------------|
| <b>MICRON</b>                    |                      | <b>COMMUNICATIONS, INC.</b> |                |
| <b>INTEGRATED CIRCUIT DESIGN</b> |                      |                             |                |
| <b>CONFIDENTIAL INFORMATION</b>  |                      |                             |                |
| PROJECT                          | L03                  | DESIGN                      | PROCESS        |
| PROCESSOR Clock Controller       |                      | REV                         | B2             |
| DATE                             | Jul 26 11:15:27 1995 | FILE                        | 100revs/clock1 |
| USER                             | ra1                  | GROUP                       |                |

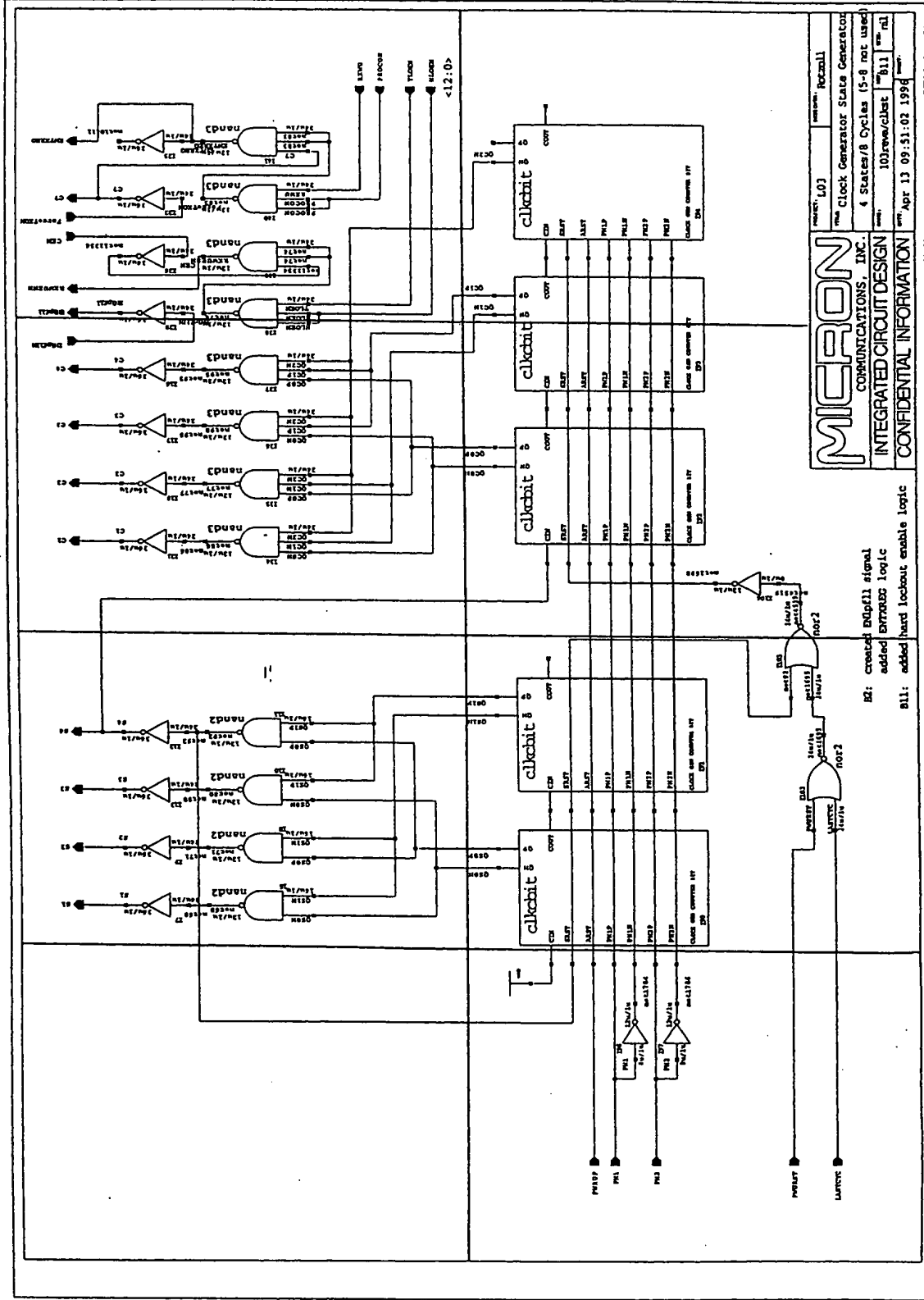


|          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 7.0102BA | 7.0102BB | 7.0102BC | 7.0102BD | 7.0102BE | 7.0102BF | 7.0102AG | 7.0102AH | 7.0102AI | 7.0102AJ |
| 7.0102CA | 7.0102CB | 7.0102CC | 7.0102CD | 7.0102CE | 7.0102CF | 7.0102CG | 7.0102CH | 7.0102CI | 7.0102CJ |
| 7.0102DA | 7.0102DB | 7.0102DC | 7.0102DD | 7.0102DE | 7.0102DF | 7.0102DG | 7.0102DH | 7.0102DI | 7.0102DJ |

FILED "E3022800"



|          |          |          |          |          |
|----------|----------|----------|----------|----------|
| 7.0103AA | 7.0103AB | 7.0103AC | 7.0103AD | 7.0103BD |
| 7.0103BA | 7.0103BB | 7.0103BC |          |          |



|                                  |                           |
|----------------------------------|---------------------------|
| MICRON                           |                           |
| COMMUNICATIONS, INC.             | INTEGRATED CIRCUIT DESIGN |
| CONFIDENTIAL INFORMATION         |                           |
| PROJECT: L03                     | RECALL                    |
| Clock Generator State Generation |                           |
| 4 States/8 Cycles (5-8 not used) |                           |
| 101new/clock                     | 811                       |
| APR 13 09:51:02 1996             |                           |

B2: created edge/11 signal  
 added error/11 logic  
 B11: added hard lockout enable logic

7.010301AB

MI40-030

7.010301AB

7.010301BB

7.010301AA

7.010301BA

7.010301BB

The schematic diagram illustrates the internal logic of a Micron Communications, Inc. integrated circuit. It features several key components and signal paths:

- Inputs:** CTD, RST, AAT, PPI, PPL, PPS, and PPSB are shown as input signals at the bottom.
- Logic Gates:** The circuit includes multiple AND gates (e.g., 1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 9A, 10A, 11A, 12A, 13A, 14A, 15A, 16A, 17A, 18A, 19A, 20A, 21A, 22A, 23A, 24A, 25A, 26A, 27A, 28A, 29A, 30A, 31A, 32A, 33A, 34A, 35A, 36A, 37A, 38A, 39A, 40A, 41A, 42A, 43A, 44A, 45A, 46A, 47A, 48A, 49A, 50A, 51A, 52A, 53A, 54A, 55A, 56A, 57A, 58A, 59A, 60A, 61A, 62A, 63A, 64A, 65A, 66A, 67A, 68A, 69A, 70A, 71A, 72A, 73A, 74A, 75A, 76A, 77A, 78A, 79A, 80A, 81A, 82A, 83A, 84A, 85A, 86A, 87A, 88A, 89A, 90A, 91A, 92A, 93A, 94A, 95A, 96A, 97A, 98A, 99A, 100A), OR gates (e.g., 1B, 2B, 3B, 4B, 5B, 6B, 7B, 8B, 9B, 10B, 11B, 12B, 13B, 14B, 15B, 16B, 17B, 18B, 19B, 20B, 21B, 22B, 23B, 24B, 25B, 26B, 27B, 28B, 29B, 30B, 31B, 32B, 33B, 34B, 35B, 36B, 37B, 38B, 39B, 40B, 41B, 42B, 43B, 44B, 45B, 46B, 47B, 48B, 49B, 50B, 51B, 52B, 53B, 54B, 55B, 56B, 57B, 58B, 59B, 60B, 61B, 62B, 63B, 64B, 65B, 66B, 67B, 68B, 69B, 70B, 71B, 72B, 73B, 74B, 75B, 76B, 77B, 78B, 79B, 80B, 81B, 82B, 83B, 84B, 85B, 86B, 87B, 88B, 89B, 90B, 91B, 92B, 93B, 94B, 95B, 96B, 97B, 98B, 99B, 100B), and NOT gates (e.g., 1C, 2C, 3C, 4C, 5C, 6C, 7C, 8C, 9C, 10C, 11C, 12C, 13C, 14C, 15C, 16C, 17C, 18C, 19C, 20C, 21C, 22C, 23C, 24C, 25C, 26C, 27C, 28C, 29C, 30C, 31C, 32C, 33C, 34C, 35C, 36C, 37C, 38C, 39C, 40C, 41C, 42C, 43C, 44C, 45C, 46C, 47C, 48C, 49C, 50C, 51C, 52C, 53C, 54C, 55C, 56C, 57C, 58C, 59C, 60C, 61C, 62C, 63C, 64C, 65C, 66C, 67C, 68C, 69C, 70C, 71C, 72C, 73C, 74C, 75C, 76C, 77C, 78C, 79C, 80C, 81C, 82C, 83C, 84C, 85C, 86C, 87C, 88C, 89C, 90C, 91C, 92C, 93C, 94C, 95C, 96C, 97C, 98C, 99C, 100C).
- Flip-Flops:** Several D-type flip-flops are present, labeled with names like 1D, 2D, 3D, 4D, 5D, 6D, 7D, 8D, 9D, 10D, 11D, 12D, 13D, 14D, 15D, 16D, 17D, 18D, 19D, 20D, 21D, 22D, 23D, 24D, 25D, 26D, 27D, 28D, 29D, 30D, 31D, 32D, 33D, 34D, 35D, 36D, 37D, 38D, 39D, 40D, 41D, 42D, 43D, 44D, 45D, 46D, 47D, 48D, 49D, 50D, 51D, 52D, 53D, 54D, 55D, 56D, 57D, 58D, 59D, 60D, 61D, 62D, 63D, 64D, 65D, 66D, 67D, 68D, 69D, 70D, 71D, 72D, 73D, 74D, 75D, 76D, 77D, 78D, 79D, 80D, 81D, 82D, 83D, 84D, 85D, 86D, 87D, 88D, 89D, 90D, 91D, 92D, 93D, 94D, 95D, 96D, 97D, 98D, 99D, 100D.
- Signal Paths:** Numerous signal paths connect the inputs, gates, and flip-flops throughout the circuit.
- Outputs:** Signals like CTD, RST, AAT, PPI, PPL, PPS, and PPSB are also shown as outputs from various points in the circuit.

# 21CIRCUITS

COMMUNICATIONS, INC.  
INTEGRATED CIRCUIT DESIGN

COMMUNICATIONS, INC.  
INTEGRATED CIRCUIT DESIGN

CONFIDENTIAL INFORMATION

|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
| 7.02AA | 7.02AB | 7.02AC | 7.02AD | 7.02AE | 7.02AF |
| 7.02BA | 7.02BB | 7.02BC | 7.02BD | 7.02BE | 7.02BF |

CONFIDENTIAL

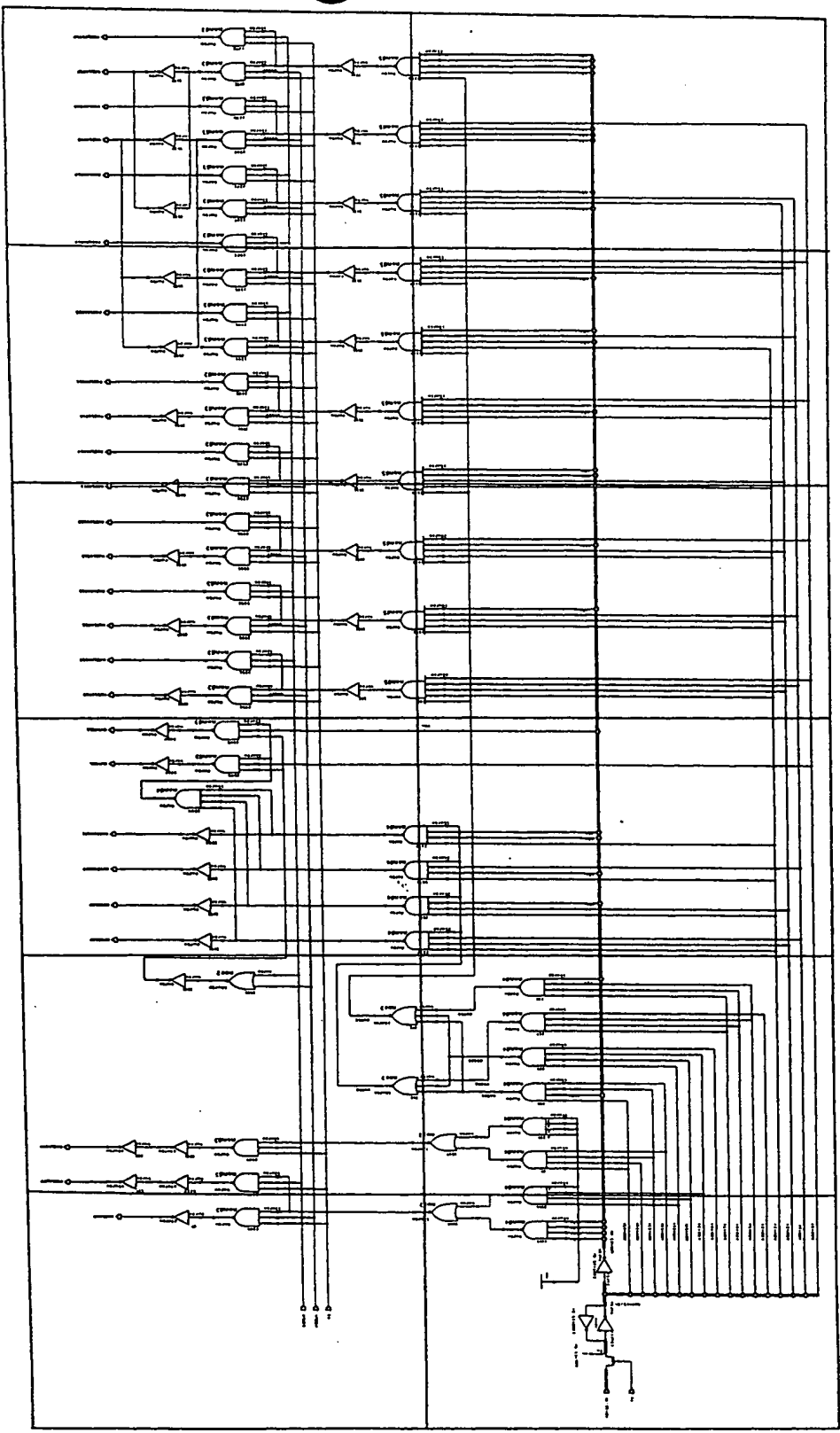


Fig. 7.02

|                          |                           |
|--------------------------|---------------------------|
| <b>MICRON</b>            |                           |
| COMMUNICATIONS           | INTEGRATED CIRCUIT DESIGN |
| CONFIDENTIAL INFORMATION |                           |
| DATE: 1-13-77            | BY: [Signature]           |
| REVISION: 1              | PROJECT: [Blank]          |
| DESIGNER: [Blank]        | CHECKED: [Blank]          |
| APPROVED: [Blank]        | DATE: 1-13-77             |

MS. Integrated drive at WILSON and WILSON



|        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 7.03AA | 7.03AB | 7.03AC | 7.03AD | 7.03AE | 7.03AF | 7.03AG | 7.03AH |
| 7.03BA | 7.03BB | 7.03BC | 7.03BD | 7.03BE | 7.03BF | 7.03BG | 7.03BH |
| 7.03CA | 7.03CB | 7.03CC | 7.03CD | 7.03CE | 7.03CF | 7.03CG | 7.03CH |
| 7.03DA | 7.03DB | 7.03DC | 7.03DD | 7.03DE | 7.03DF | 7.03DG | 7.03DH |
| 7.03EA | 7.03EB | 7.03EC | 7.03ED | 7.03EE | 7.03EF | 7.03EG | 7.03EH |

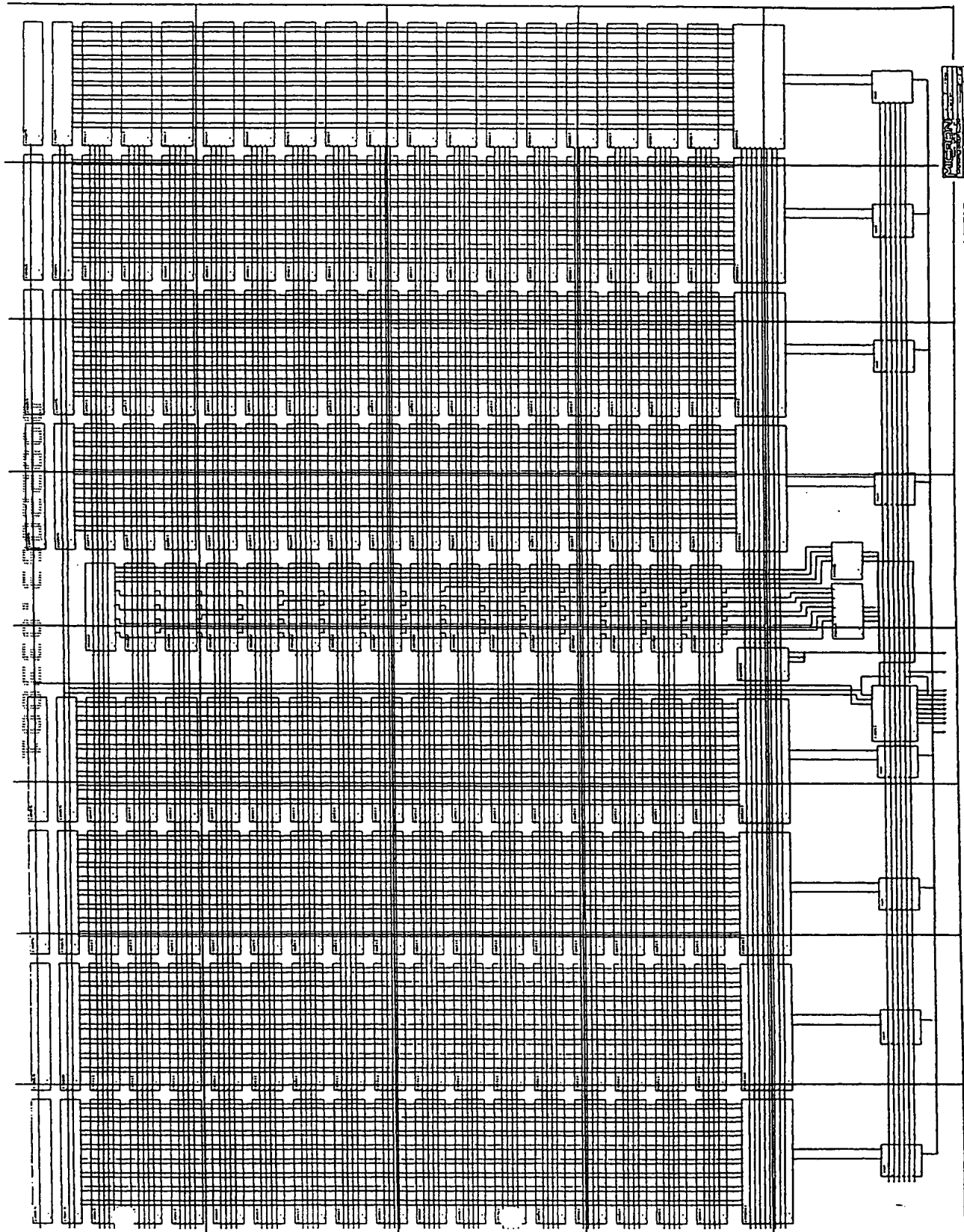


Fig 7.03

|          |          |
|----------|----------|
| 7.0301AA | 7.0301AB |
| 7.0301BA | 7.0301BB |

Fig. 7.0301

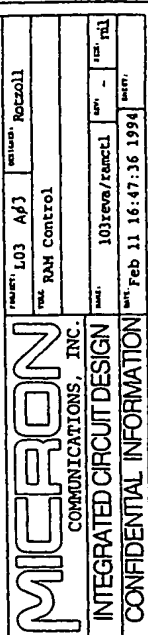


Fig. 7.0301

7.030200 7.030200 7.030200

MI40-030

7.0302AC

7.0302AB

7.0302AA

7.0302

3

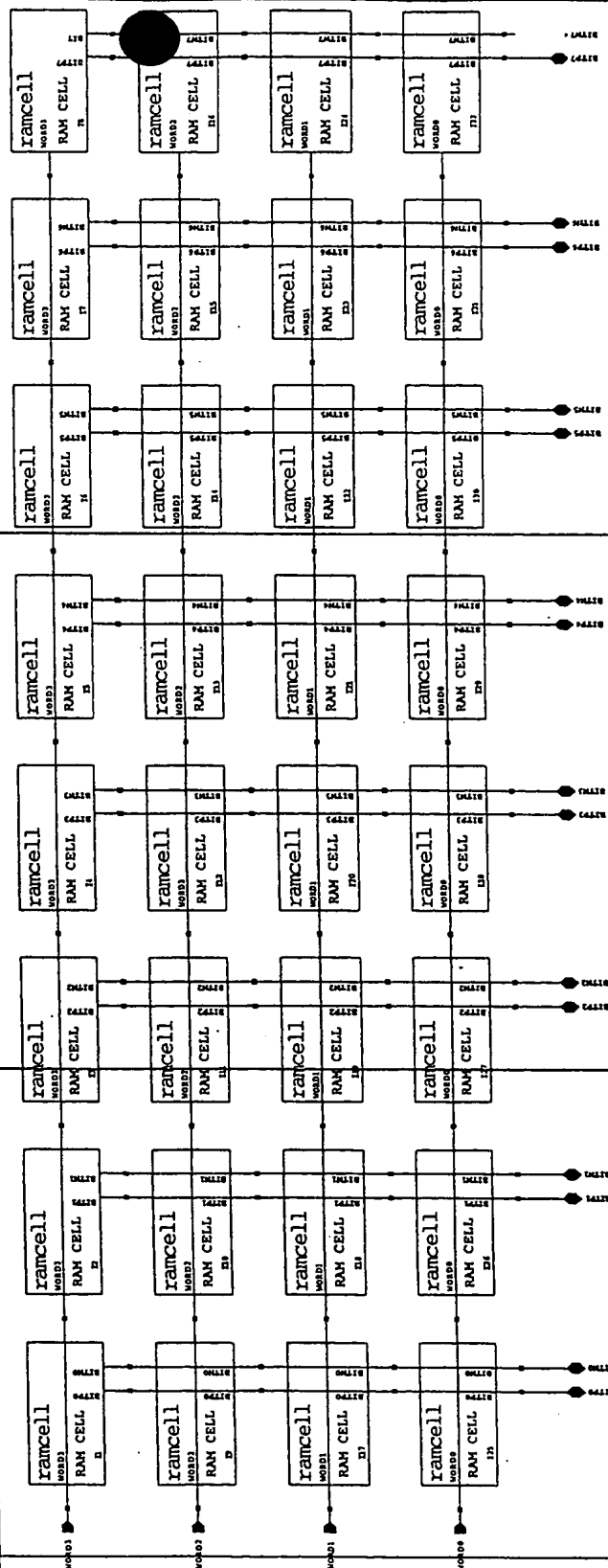


FIG. 7.0302

MICRON COMMUNICATIONS, INC.

INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

|                           |                |        |         |
|---------------------------|----------------|--------|---------|
| base.                     | 103revA/ram8x4 | REV: - | EXT mil |
| NIT 1000: 6 11.34.37 1001 |                |        |         |

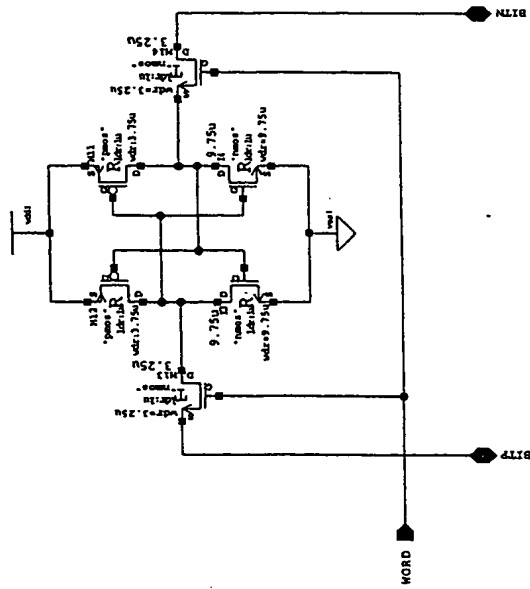


Fig. 7.03020

|                           |  |                           |                   |
|---------------------------|--|---------------------------|-------------------|
| <b>MICRON</b>             |  | PROJECT: L03              | DESIGNER: Rotzoll |
| COMMUNICATIONS, INC.      |  | TITLE: 6T RAM Cell        |                   |
| INTEGRATED CIRCUIT DESIGN |  | MODEL: 103reva/rancell    | REV: -            |
| CONFIDENTIAL INFORMATION  |  | DATE: Nov 6 11:34:48 1993 | SHEET: A          |

7.0303AD 7.0303AC 7.0303AB 7.0303AA

MI40-030

|          |          |          |          |
|----------|----------|----------|----------|
| 7.0303AA | 7.0303AB | 7.0303AC | 7.0303AD |
|----------|----------|----------|----------|

II II 7.0303E





7.0304AA 7.0304AB 7.0304AC 7.0304AD

MI40-030

|          |          |          |          |
|----------|----------|----------|----------|
| 7.0304AA | 7.0304AB | 7.0304AC | 7.0304AD |
|----------|----------|----------|----------|

7.0304





7.0306AA

7.0306BA

7.0306

7.0306AA 7.0306BA



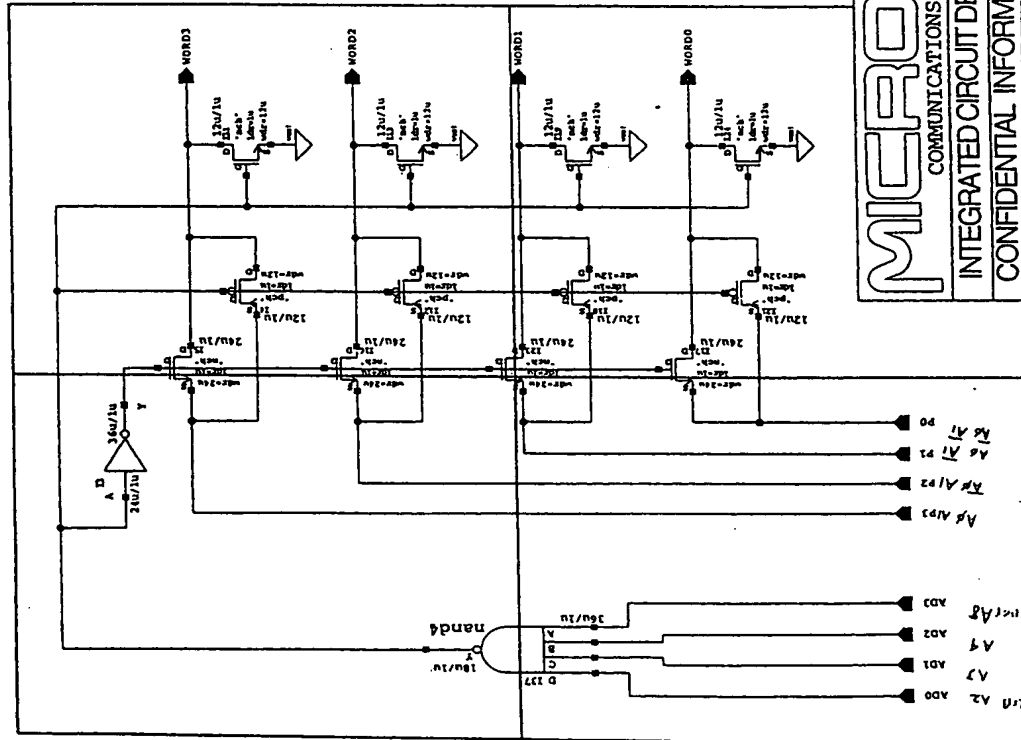
70307 "code" 00

|          |          |
|----------|----------|
| 7.0307AA | 7.0307AB |
| 7.0307BA | 7.0307BB |

7.0307

CONFIDENTIAL

Fig. 7.0307



|                           |  |                      |  |                              |                 |                   |   |
|---------------------------|--|----------------------|--|------------------------------|-----------------|-------------------|---|
| MICRON                    |  | COMMUNICATIONS, INC. |  | PROJECT: L03                 |                 | DESIGNED: Rotzoll |   |
| INTEGRATED CIRCUIT DESIGN |  |                      |  | TITLE: RAM Word Line Decoder |                 |                   |   |
| CONFIDENTIAL INFORMATION  |  |                      |  | NAME:                        | 103revA/ramwdec | REV:              | A |
|                           |  |                      |  | DATE: Sep 29 15:41:08 1993   |                 | PAGE:             |   |

**MICRON**  
COMMUNICATIONS, INC.  
INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION



7.0308BB

7.0308AA

7.0308AB

7.0308BA

7.0308BB

7.0308

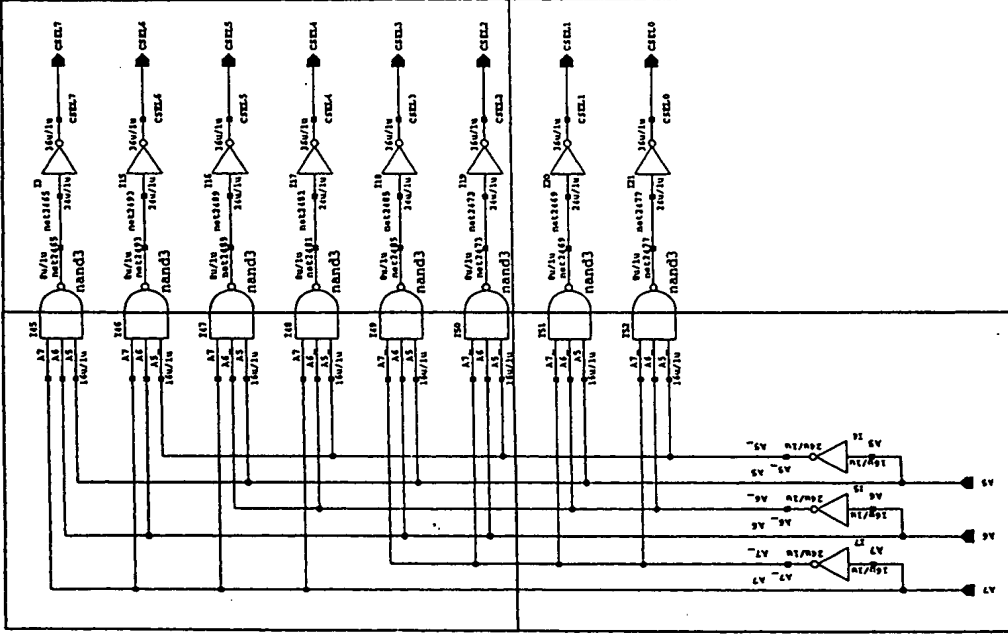


FIG. 7.0308

|                           |  |                         |                     |
|---------------------------|--|-------------------------|---------------------|
| MICRON                    |  | REV. L03                | DATE: 10/21/93      |
| COMMUNICATIONS, INC.      |  | RM Column Select Decode |                     |
| INTEGRATED CIRCUIT DESIGN |  | 3 to 8                  |                     |
| CONFIDENTIAL INFORMATION  |  | 103revb/rancdec         | REV. - 103 rev. 111 |
|                           |  | Nov 5 17:21:07 1993     | DATE                |







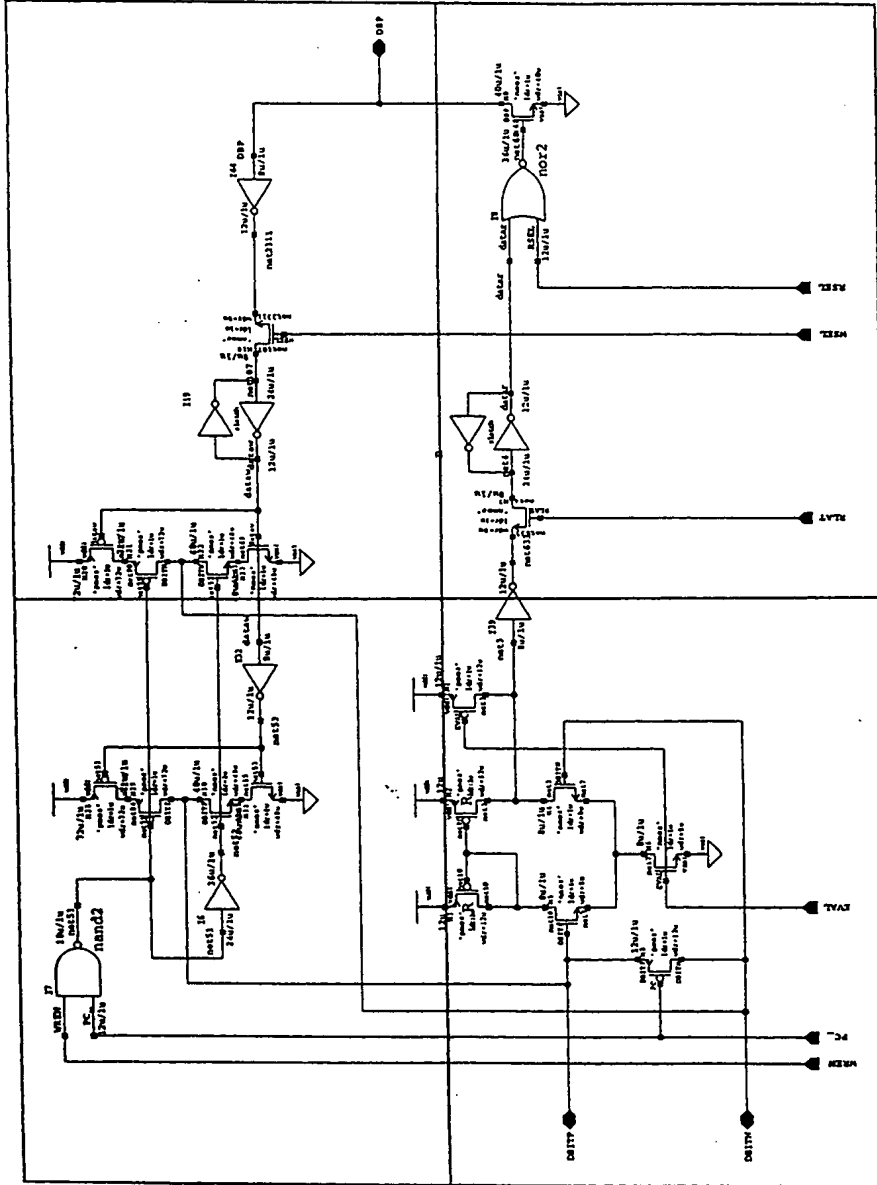


Fig. 7.0310

|                           |  |                           |                   |
|---------------------------|--|---------------------------|-------------------|
| MICRON                    |  | PROJECT: L03              | REVISION: Rotzoll |
| COMMUNICATIONS, INC.      |  | RAM Databus Interface     |                   |
| INTEGRATED CIRCUIT DESIGN |  | DATE: 10/31/93            | REV: 1            |
| CONFIDENTIAL INFORMATION  |  | DATE: Oct 6 12:08:33 1993 |                   |

|        |        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 7.04AA | 7.04AB | 7.04AC | 7.04AD | 7.04AE | 7.04AF | 7.04AG | 7.04AH | 7.04AI | 7.04AJ |
| 7.04BA | 7.04BB | 7.04BC | 7.04BD | 7.04BE | 7.04BF | 7.04BG | 7.04BH | 7.04BI | 7.04BJ |
| 7.04CA | 7.04CB | 7.04CC | 7.04CD | 7.04CE | 7.04CF | 7.04CG | 7.04CH | 7.04CI | 7.04CJ |
| 7.04DA | 7.04DB | 7.04DC | 7.04DD | 7.04DE | 7.04DF | 7.04DG | 7.04DH | 7.04DI | 7.04DJ |
| 7.04EA | 7.04EB | 7.04EC | 7.04ED | 7.04EE | 7.04EF | 7.04EG | 7.04EH | 7.04EI | 7.04EJ |
| 7.04FA | 7.04FB | 7.04FC | 7.04FD | 7.04FE | 7.04FF | 7.04FG | 7.04FH | 7.04FI | 7.04FJ |
| 7.04GA | 7.04GB | 7.04GC | 7.04GD | 7.04GE | 7.04GF | 7.04GG | 7.04GH | 7.04GI | 7.04GJ |
| 7.04HA | 7.04HB | 7.04HC | 7.04HD | 7.04HE | 7.04HF | 7.04HG | 7.04HH | 7.04HI | 7.04HJ |

FIG. 7.04

FIG. 7.04

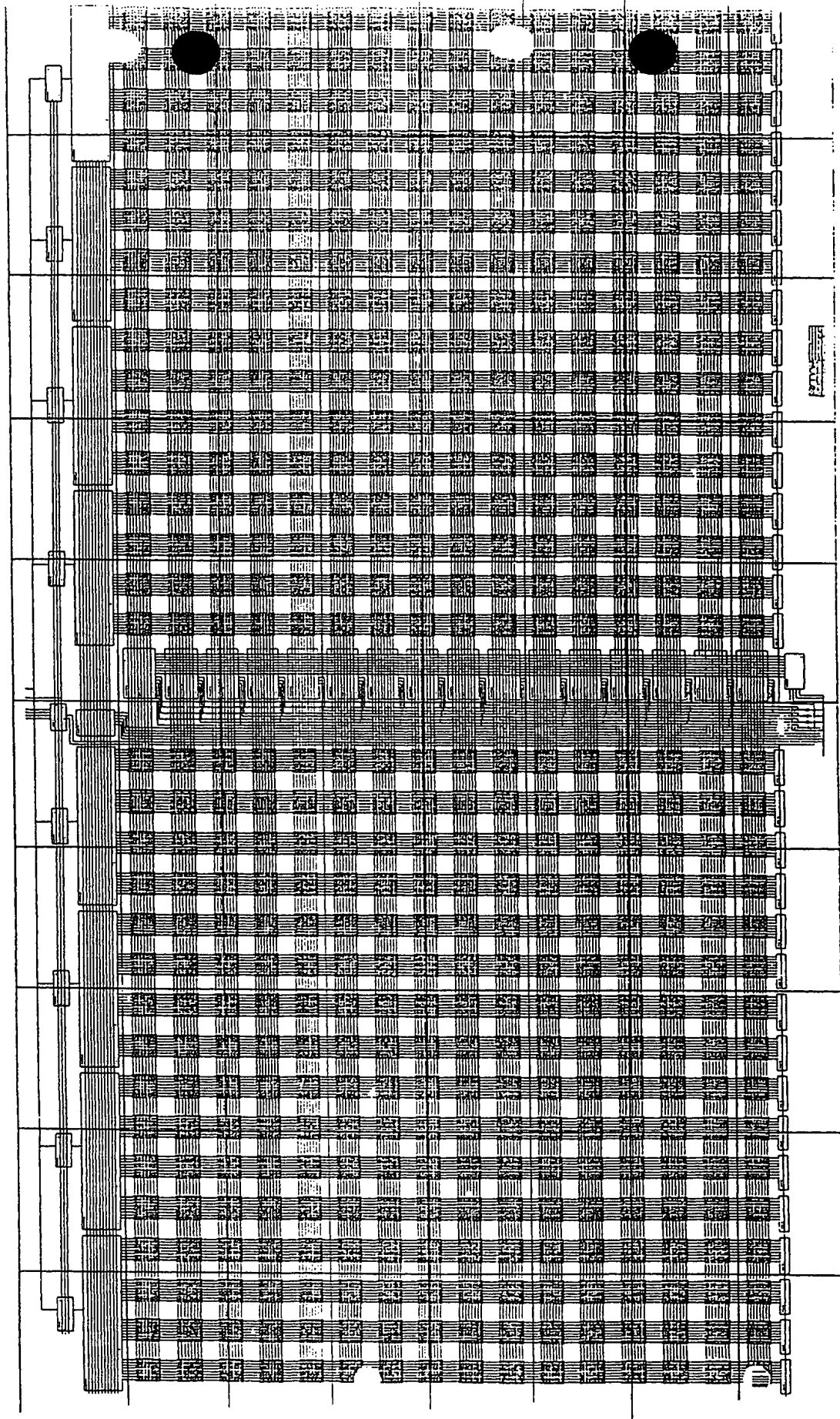






FIGURE 7.0401

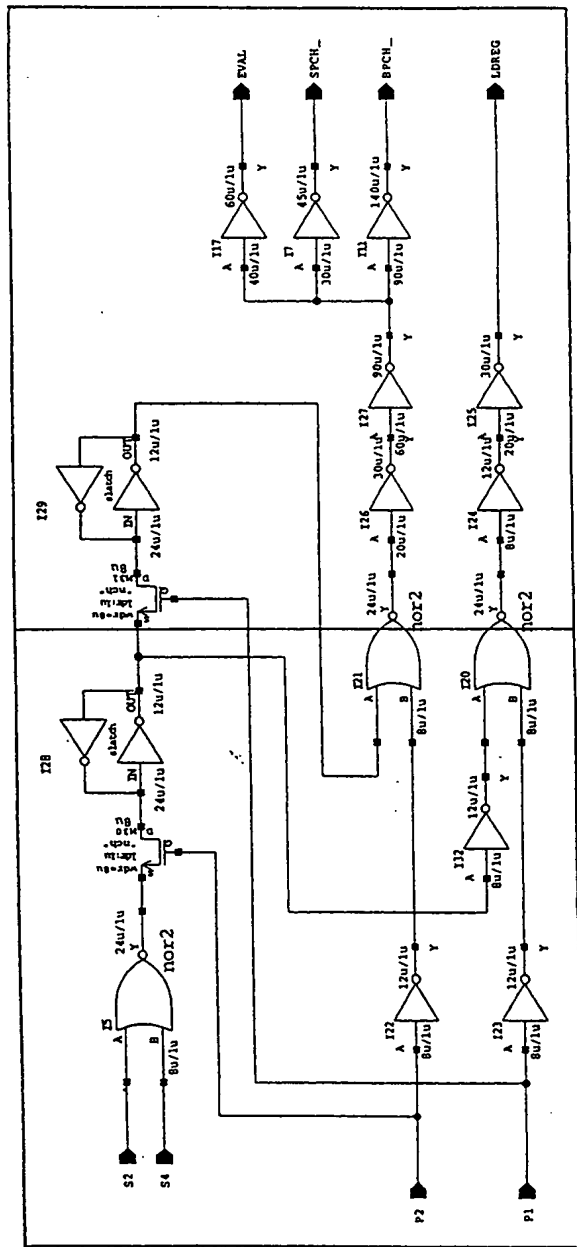


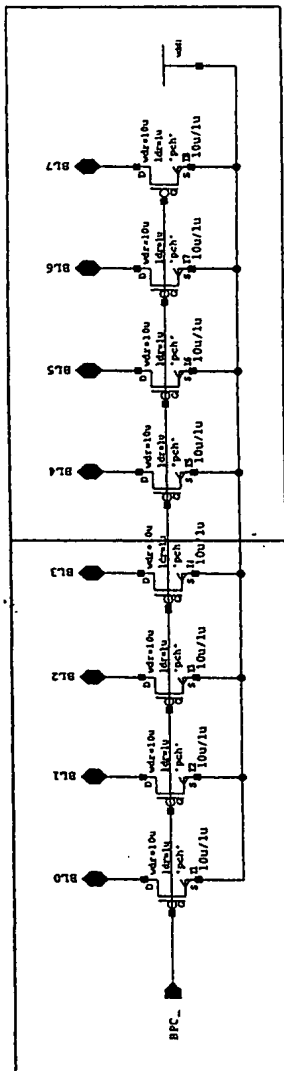
Fig. 7.0401

|                           |  |                           |                   |
|---------------------------|--|---------------------------|-------------------|
| MICRON                    |  | PROJECT: L03              | DESIGNER: Rotzoll |
| COMMUNICATIONS, INC.      |  | TITLE: ROM Control Logic  |                   |
| INTEGRATED CIRCUIT DESIGN |  | NOV: 103reva/romctl       | REV: -            |
| CONFIDENTIAL INFORMATION  |  | DATE: Oct 3 13:16:28 1993 | SIZE: A           |

TABLE 2.0

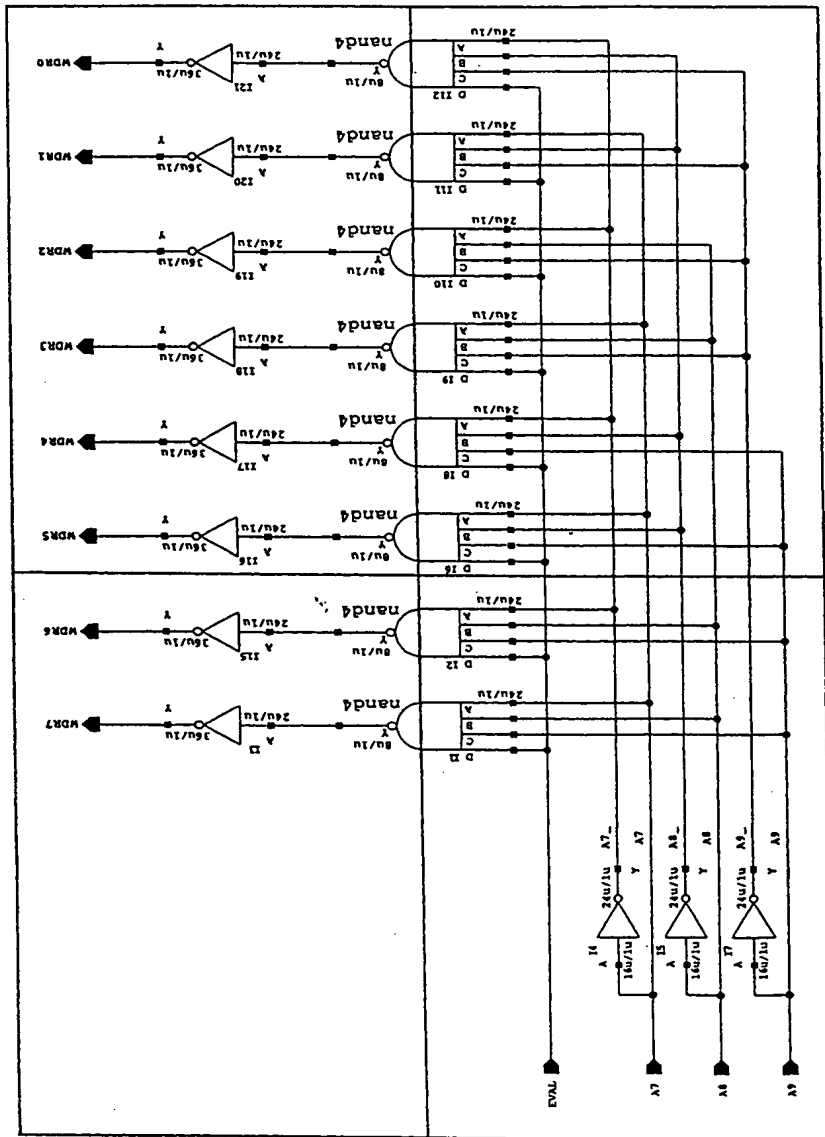
|          |          |
|----------|----------|
| 7.0402AA | 7.0402AB |
|----------|----------|

MI 40-030



|                           |  |                               |                   |
|---------------------------|--|-------------------------------|-------------------|
| MICRON                    |  | PROJECT: L03                  | DESIGNER: Rotzoll |
| COMMUNICATIONS, INC.      |  | TITLE: ROM Bit Line Precharge |                   |
| INTEGRATED CIRCUIT DESIGN |  | NOV: 103reva/rompch           | REV: -            |
| CONFIDENTIAL INFORMATION  |  | DATE: Oct 7 18:09:48 1993     | SHEET: A          |





|                             |  |                   |        |
|-----------------------------|--|-------------------|--------|
| PROJECT: L03                |  | DESIGNER: Rotzoll |        |
| TITLE: ROM Word Line Driver |  |                   |        |
| NAME: 103reva/romwdr        |  | REV: -            | REV: A |
| DATE: Oct 7 18:11:34 1993   |  | SHEET: 1          |        |

**MICRON**  
COMMUNICATIONS, INC.

INTEGRATED CIRCUIT DESIGN

CONFIDENTIAL INFORMATION

7.0404BA 7.0404BB 7.0404BC

|          |          |          |
|----------|----------|----------|
|          | 7.0404AB | 7.0404AC |
| 7.0404BA | 7.0404BB | 7.0404BC |
|          | 7.0404CB | 7.0404CC |
|          | 7.0404DB | 7.0404DC |

7.0404 7.0404

FIGURE 7-0404

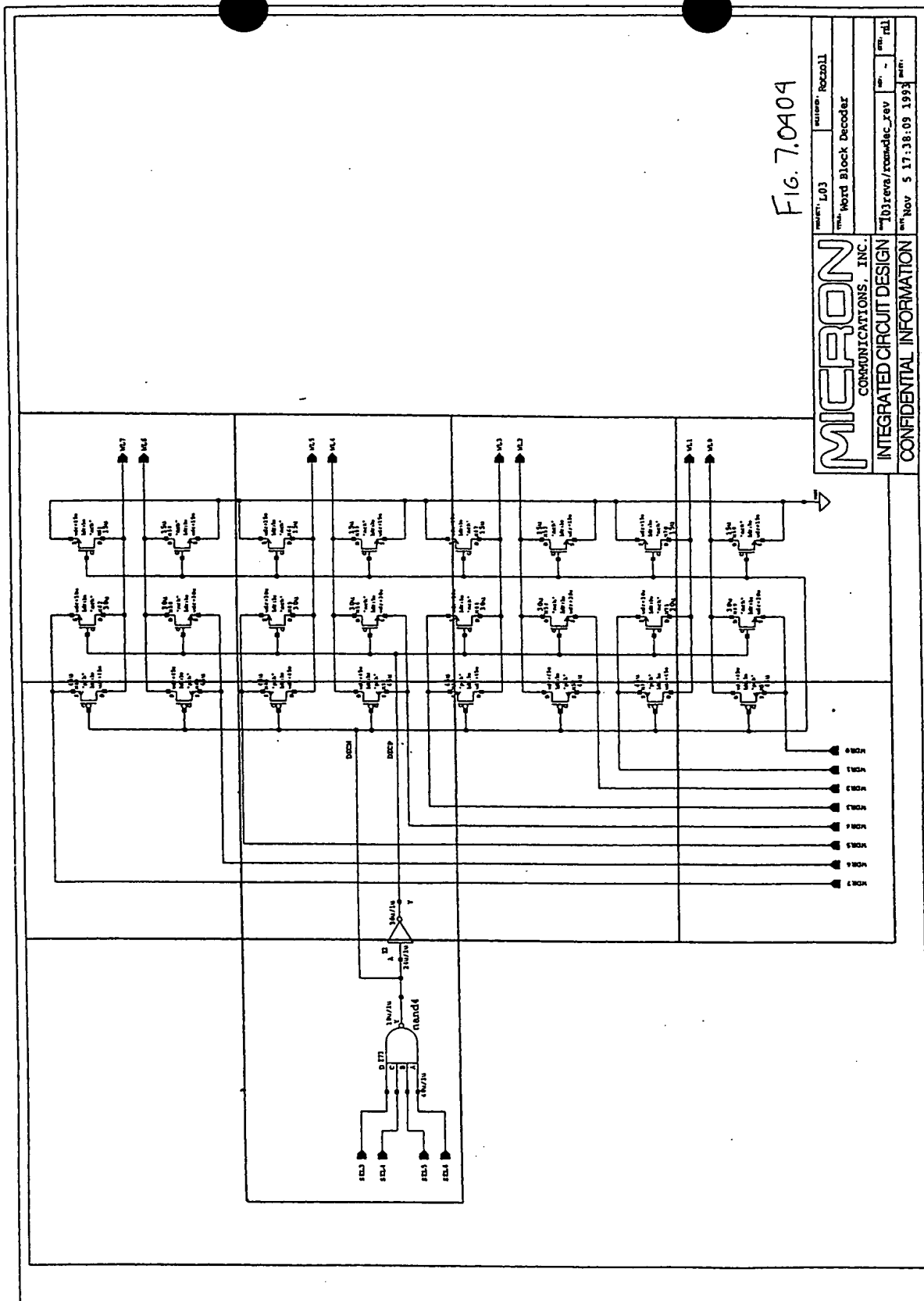


Fig. 7.0404

**MICRON**  
COMMUNICATIONS, INC.

INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

DESIGN: L03  
REV: Word Block Decoder  
DATE: 10/17/93  
BY: [Signature]  
CHECKED: [Signature]  
DATE: 11/17/93  
BY: [Signature]



7.0405AA

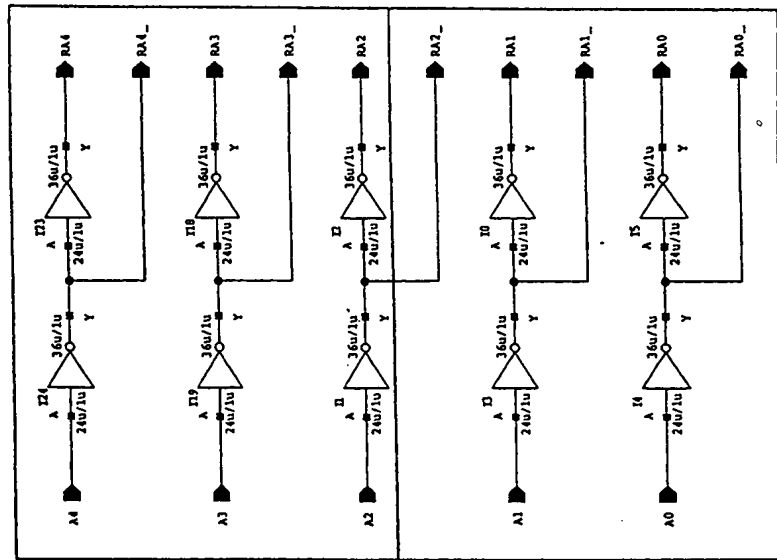
7.0405BA

7.0405

7.0405AA 7.0405BA

FIG. 7.0405

FIG. 7.0405



|                           |  |                                    |                   |
|---------------------------|--|------------------------------------|-------------------|
| MICRON                    |  | PROJECT: L03                       | DESIGNER: ROTZOLL |
| COMMUNICATIONS, INC.      |  | TITLE: ROM Bit Line Address Driver |                   |
| INTEGRATED CIRCUIT DESIGN |  | NAME: 103reva/rombldr              | REV: -            |
| CONFIDENTIAL INFORMATION  |  | DATE: Oct 7 12:08:42 1993          | SHEET: A          |

|          |          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 7.0406AA | 7.0406AB | 7.0406AC | 7.0406AD | 7.0406AE | 7.0406AF | 7.0406AG | 7.0406AH | 7.0406AI | 7.0406AJ |          |
| 7.0406BA | 7.0406BB | 7.0406BC | 7.0406BD | 7.0406BE | 7.0406BF | 7.0406BG | 7.0406BH | 7.0406BI | 7.0406BJ | 7.0406BK |
| 7.0406CA | 7.0406CB | 7.0406CC | 7.0406CD | 7.0406CE | 7.0406CF | 7.0406CG | 7.0406CH | 7.0406CI | 7.0406CJ | 7.0406CK |



7.0407AA 7.0407AB

|          |          |
|----------|----------|
| 7.0407AA | 7.0407AB |
|----------|----------|

7.0407

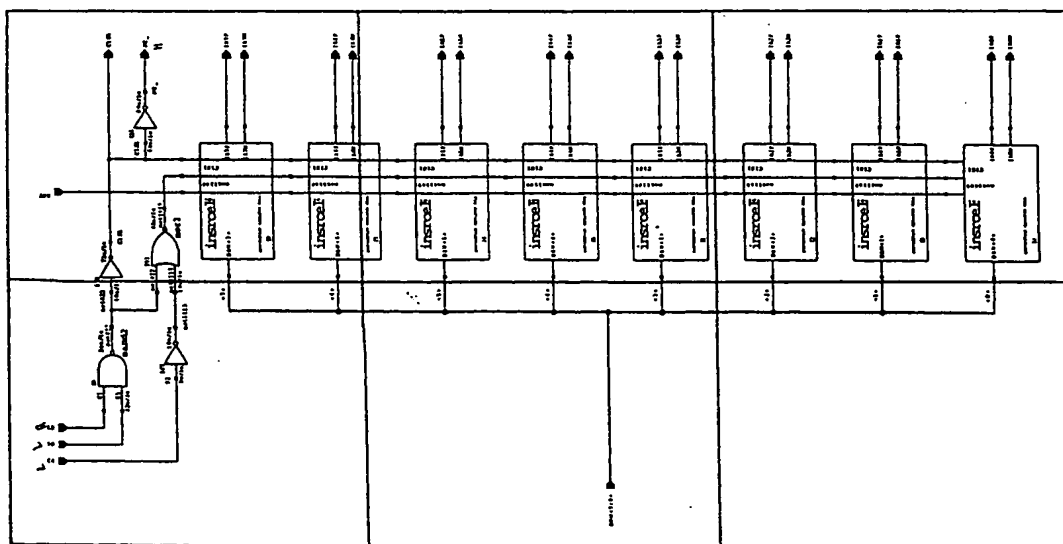


"00000" 09000000

|        |        |
|--------|--------|
| 7.05AA | 7.05AB |
| 7.05BA | 7.05BB |
| 7.05CA | 7.05CB |

Fig 7.05

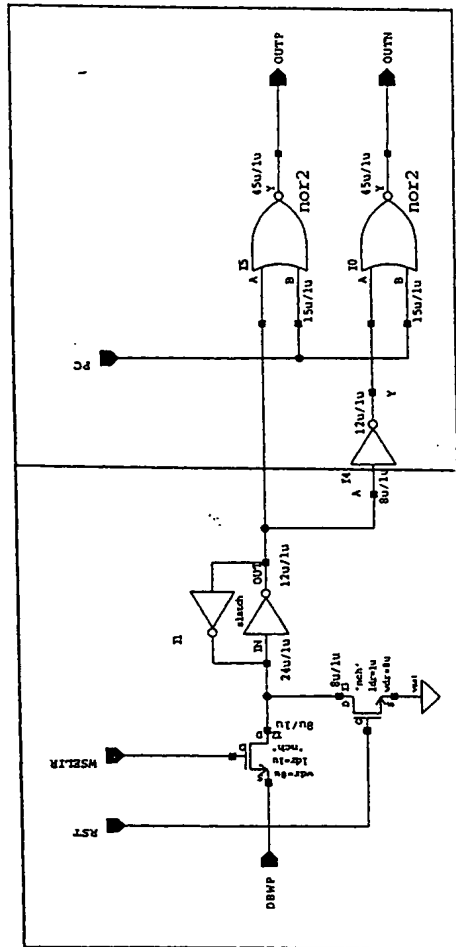
FIG. 7.05



|                      |               |                           |          |
|----------------------|---------------|---------------------------|----------|
| <b>MICRON</b>        |               | INTEGRATED CIRCUIT DESIGN |          |
| COMMUNICATIONS, INC. |               | CONFIDENTIAL INFORMATION  |          |
| part no.             | 1012000/Usorg | rev.                      | 1        |
| date                 | 12/17/88      | date                      | 10/12/88 |
| Instruction Register |               |                           |          |
| author               | 101           | revision                  | Revell   |







|                                  |  |                   |         |
|----------------------------------|--|-------------------|---------|
| PROJECT: L03                     |  | DESIGNED: Rotzoll |         |
| TITLE: Instruction Register Cell |  |                   |         |
| NAME: 103reva/insrcel            |  | REV: -            | SIZE: A |
| DATE: Oct 5 20:12:49 1993        |  | SHEET: 1          |         |

|        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 7.06AA | 7.06AB | 7.06AC | 7.06AD | 7.06AE | 7.06AF | 7.06AG | 7.06AH | 7.06AI | 7.06AJ | 7.06AK | 7.06AL | 7.06AM | 7.06AN |
|        | 7.06BB | 7.06BC | 7.06BD | 7.06BE | 7.06BF | 7.06BG | 7.06BH | 7.06BI | 7.06BJ | 7.06BK | 7.06BL | 7.06BM | 7.06BN |
| 7.06CA | 7.06CB | 7.06CC | 7.06CD | 7.06CE | 7.06CF | 7.06CG | 7.06CH | 7.06CI | 7.06CJ | 7.06CK | 7.06CL | 7.06CM | 7.06CN |

7.0660" 29022660

6060" 6060" 6060"

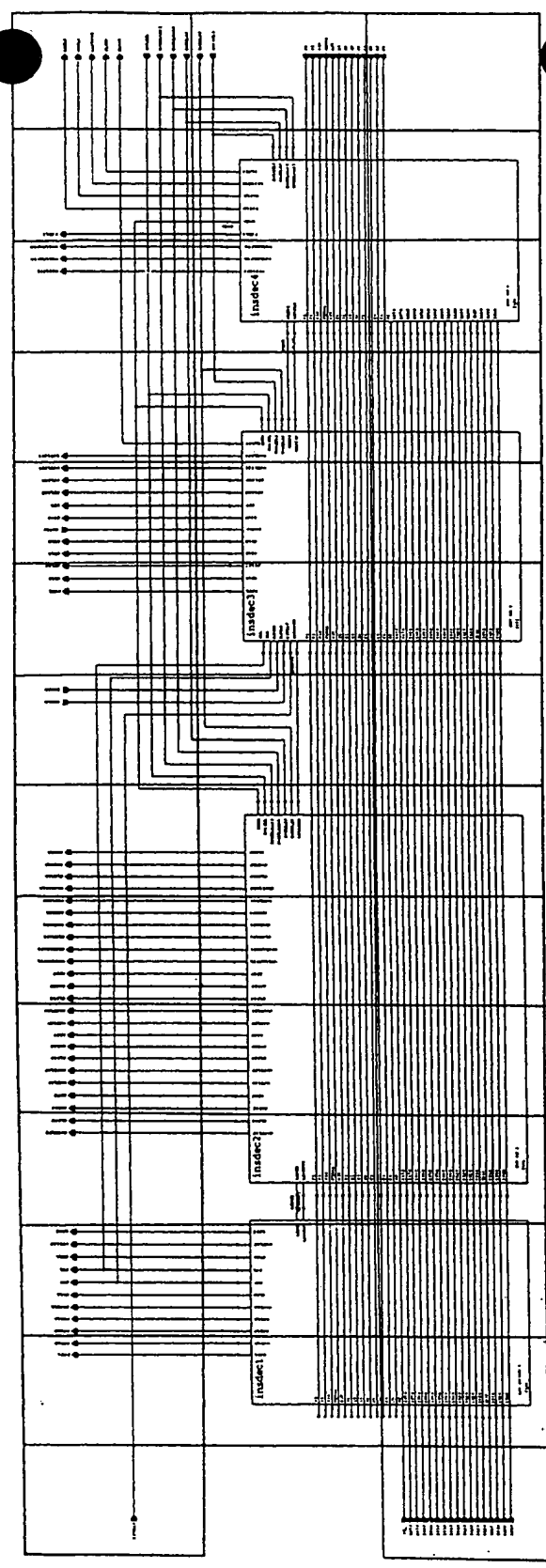


Fig. 7.06

|                           |  |             |         |
|---------------------------|--|-------------|---------|
| MICRON                    |  | DATE        | 1/11/77 |
| INTEGRATED CIRCUIT DESIGN |  | DESIGNED BY | 1/11/77 |
| CONFIDENTIAL INFORMATION  |  | DESIGNED BY | 1/11/77 |

7.0601 7.0601 7.0601

|          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 7.0601AA | 7.0601AB | 7.0601AC | 7.0601AD | 7.0601AE | 7.0601AF | 7.0601AG | 7.0601AH | 7.0601AI |
| 7.0601BA | 7.0601BB | 7.0601BC | 7.0601BD | 7.0601BE | 7.0601BF | 7.0601BG | 7.0601BH | 7.0601BI |
| 7.0601CA | 7.0601CB | 7.0601CC | 7.0601CD | 7.0601CE | 7.0601CF | 7.0601CG | 7.0601CH | 7.0601CI |
| 7.0601DA | 7.0601DB | 7.0601DC | 7.0601DD | 7.0601DE | 7.0601DF | 7.0601DG | 7.0601DH | 7.0601DI |
| 7.0601EA | 7.0601EB | 7.0601EC | 7.0601ED | 7.0601EE | 7.0601EF | 7.0601EG | 7.0601EH | 7.0601EI |
| 7.0601FA | 7.0601FB | 7.0601FC | 7.0601FD | 7.0601FE | 7.0601FF | 7.0601FG | 7.0601FH | 7.0601FI |
| 7.0601GA | 7.0601GB | 7.0601GC | 7.0601GD | 7.0601GE | 7.0601GF | 7.0601GG | 7.0601GH | 7.0601GI |
| 7.0601HA | 7.0601HB | 7.0601HC | 7.0601HD | 7.0601HE | 7.0601HF | 7.0601HG | 7.0601HH | 7.0601HI |

7.0601 7.0601

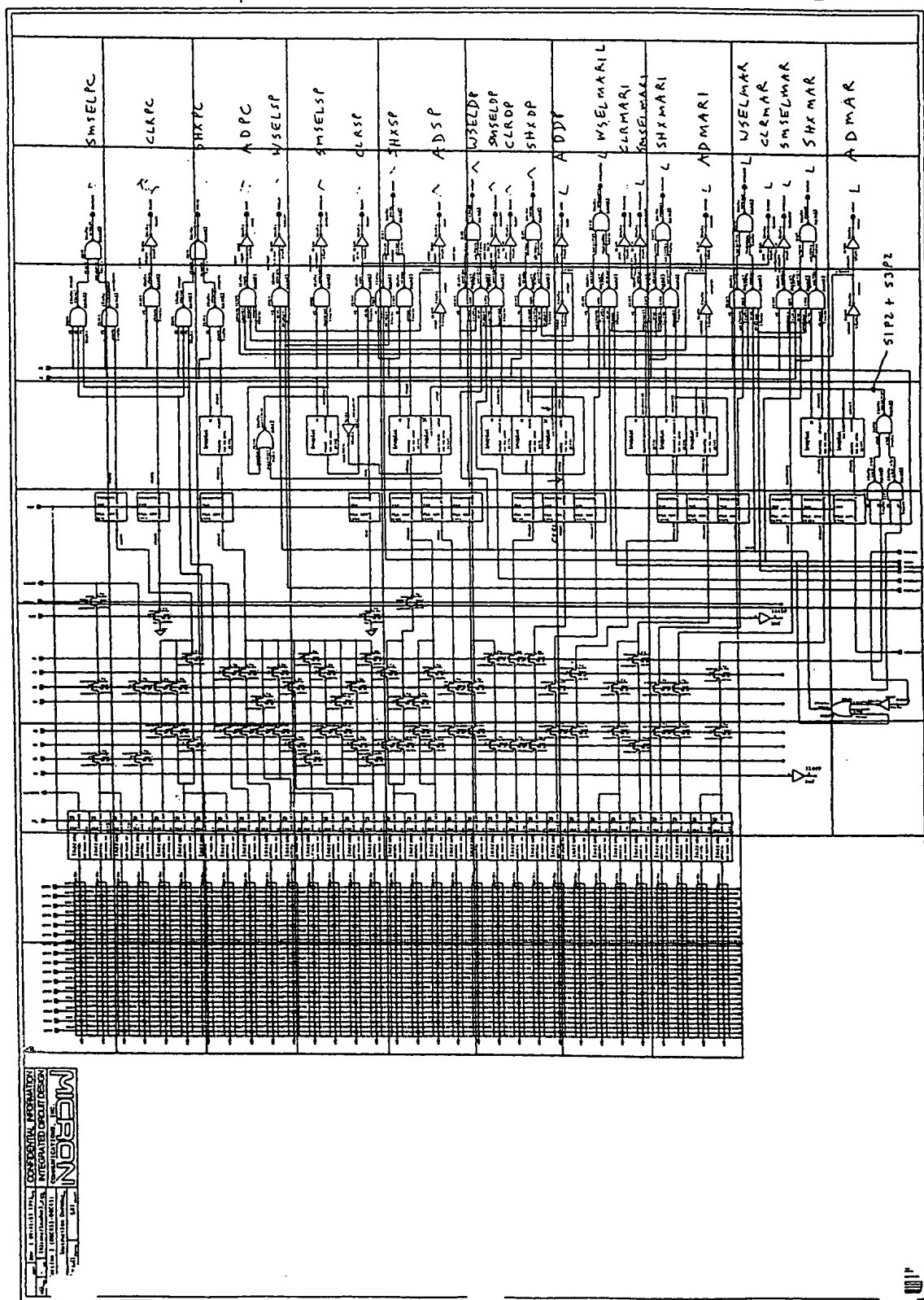


70602 70602 70602

|          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|
| 7.0602AA | 7.0602AB | 7.0602AC | 7.0602AD | 7.0602AE | 7.0602AF | 7.0602AG | 7.0602AH |
| 7.0602BA | 7.0602BB | 7.0602BC | 7.0602BD | 7.0602BE | 7.0602BF | 7.0602BG | 7.0602BH |
| 7.0602CA | 7.0602CB | 7.0602CC | 7.0602CD | 7.0602CE | 7.0602CF | 7.0602CG | 7.0602CH |
| 7.0602DA | 7.0602DB | 7.0602DC | 7.0602DD | 7.0602DE | 7.0602DF | 7.0602DG | 7.0602DH |
| 7.0602EA | 7.0602EB | 7.0602EC | 7.0602ED | 7.0602EE | 7.0602EF | 7.0602EG | 7.0602EH |
| 7.0602FA | 7.0602FB | 7.0602FC | 7.0602FD | 7.0602FE | 7.0602FF | 7.0602FG | 7.0602FH |
| 7.0602GA | 7.0602GB | 7.0602GC | 7.0602GD | 7.0602GE | 7.0602GF | 7.0602GG | 7.0602GH |
| 7.0602HA | 7.0602HB | 7.0602HC | 7.0602HD | 7.0602HE | 7.0602HF | 7.0602HG | 7.0602HH |
|          |          | 7.0602IC | 7.0602ID | 7.0602IE | 7.0602IF | 7.0602IG | 7.0602IH |
|          |          | 7.0602JC | 7.0602JD | 7.0602JE | 7.0602JF | 7.0602JG | 7.0602JH |

7.0602

|      |      |                           |
|------|------|---------------------------|
| DATE | TIME | CONFIDENTIAL INFORMATION: |
|      |      | INTEGRATED CIRCUIT DESIGN |
|      |      | COMMUNICATIONS, INC.      |
|      |      | <b>MICRON</b>             |



- ADPC is high  
one of these is 009  
ADSP, ADD, ADMA2  
ADMA2

FIG. 7.0602



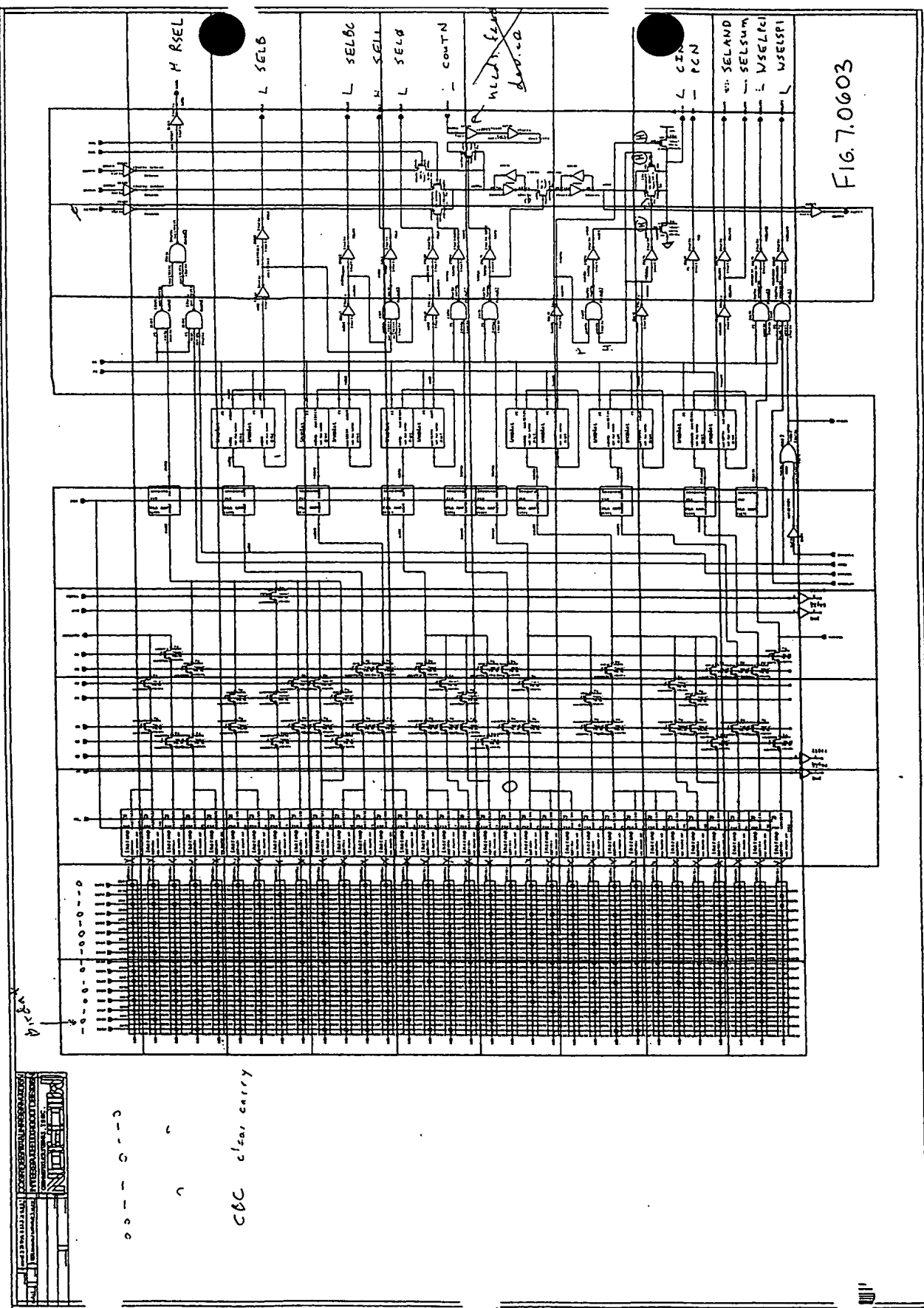
7.0603AA 7.0603AB

|          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 7.0603AA | 7.0603AB | 7.0603AC | 7.0603AD | 7.0603AE | 7.0603AF | 7.0603AH | 7.0603AI | 7.0603AJ |
| 7.0603BA | 7.0603BB | 7.0603BC | 7.0603BD | 7.0603BE | 7.0603BF | 7.0603BG | 7.0603BI | 7.0603BJ |
| 7.0603CA | 7.0603CB | 7.0603CC | 7.0603CD | 7.0603CE | 7.0603CF | 7.0603CG | 7.0603CI | 7.0603CJ |
| 7.0603DA | 7.0603DB | 7.0603DC | 7.0603DD | 7.0603DE | 7.0603DF | 7.0603DG | 7.0603DI | 7.0603DJ |
| 7.0603EA | 7.0603EB | 7.0603EC | 7.0603ED | 7.0603EE | 7.0603EF | 7.0603EG | 7.0603EI | 7.0603EJ |
| 7.0603FA | 7.0603FB | 7.0603FC | 7.0603FD | 7.0603FE | 7.0603FF | 7.0603FG | 7.0603FI | 7.0603FJ |
| 7.0603GA | 7.0603GB | 7.0603GC | 7.0603GD | 7.0603GE | 7.0603GF | 7.0603GG | 7.0603GI | 7.0603GJ |
| 7.0603HA | 7.0603HB | 7.0603HC | 7.0603HD | 7.0603HE | 7.0603HF | 7.0603HG | 7.0603HI | 7.0603HJ |
| 7.0603IA | 7.0603IB | 7.0603IC | 7.0603ID | 7.0603IE | 7.0603IF | 7.0603IG | 7.0603II | 7.0603IJ |
|          |          | 7.0603JC | 7.0603JD | 7.0603JE | 7.0603JF | 7.0603JG | 7.0603JI |          |
|          |          |          |          |          |          |          |          | 7.0603BK |

7.0603AA 7.0603AB

[illegible]

CBC c'ed, carry



7.0604AA 7.0604AB 7.0604AC 7.0604AD 7.0604AE 7.0604AF 7.0604AG 7.0604AH 7.0604AI

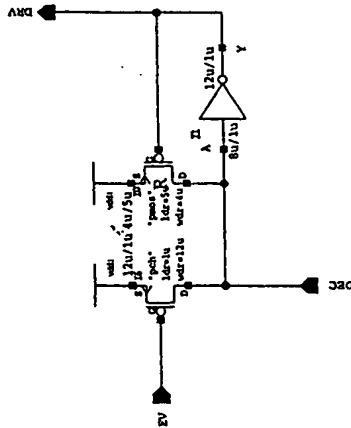
|          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 7.0604AA | 7.0604AB | 7.0604AC | 7.0604AD | 7.0604AE | 7.0604AF | 7.0604AG | 7.0604AH | 7.0604AI |
| 7.0604BA | 7.0604BB | 7.0604BC | 7.0604BD | 7.0604BE | 7.0604BF | 7.0604BG | 7.0604BH | 7.0604BI |
| 7.0604CA | 7.0604CB | 7.0604CC | 7.0604CD | 7.0604CE | 7.0604CF | 7.0604CG | 7.0604CH | 7.0604CI |
| 7.0604DA | 7.0604DB | 7.0604DC | 7.0604DD | 7.0604DE | 7.0604DF | 7.0604DG | 7.0604DH | 7.0604DI |
| 7.0604EA | 7.0604EB | 7.0604EC | 7.0604ED | 7.0604EE | 7.0604EF | 7.0604EG | 7.0604EH | 7.0604EI |
| 7.0604FA | 7.0604FB | 7.0604FC | 7.0604FD | 7.0604FE | 7.0604FF | 7.0604FG | 7.0604FH | 7.0604FI |
| 7.0604GA | 7.0604GB | 7.0604GC | 7.0604GD | 7.0604GE | 7.0604GF | 7.0604GG | 7.0604GH | 7.0604GI |
| 7.0604HA | 7.0604HB | 7.0604HC | 7.0604HD | 7.0604HE | 7.0604HF | 7.0604HG |          |          |
| 7.0604IA | 7.0604IB | 7.0604IC | 7.0604ID | 7.0604IE | 7.0604IF | 7.0604IG |          |          |
| 7.0604JA | 7.0604JB | 7.0604JC | 7.0604JD | 7.0604JE | 7.0604JF | 7.0604JG | 7.0604JH | 7.0604JI |

7.0604JJ 7.0604JK 7.0604KL 7.0604LM 7.0604MN 7.0604NO 7.0604OP 7.0604PQ 7.0604RQ 7.0604RS 7.0604ST 7.0604TU 7.0604TV 7.0604UW 7.0604VX 7.0604WY 7.0604XZ 7.0604YA 7.0604YB 7.0604YC 7.0604YD 7.0604YE 7.0604YF 7.0604YG 7.0604YH 7.0604YI 7.0604YJ 7.0604YK 7.0604YL 7.0604YM 7.0604YN 7.0604YO 7.0604YP 7.0604YQ 7.0604YR 7.0604YS 7.0604YT 7.0604YU 7.0604YV 7.0604YW 7.0604YX 7.0604YY 7.0604YZ 7.0604ZA 7.0604ZB 7.0604ZC 7.0604ZD 7.0604ZE 7.0604ZF 7.0604ZG 7.0604ZH 7.0604ZI 7.0604ZJ 7.0604ZK 7.0604ZL 7.0604ZM 7.0604ZN 7.0604ZO 7.0604ZP 7.0604ZQ 7.0604ZR 7.0604ZS 7.0604ZT 7.0604ZU 7.0604ZV 7.0604ZW 7.0604ZX 7.0604ZY 7.0604ZZ





FIG. 7.060402



|                           |  |                                    |                   |
|---------------------------|--|------------------------------------|-------------------|
| MICRON                    |  | PROJECT: L03                       | DESIGNER: Rotzoll |
| COMMUNICATIONS, INC.      |  | TITLE: Instruction Decoder PLA Amp |                   |
| INTEGRATED CIRCUIT DESIGN |  | DATE: 103reva/inspamp              | REV: -            |
| CONFIDENTIAL INFORMATION  |  | DATE: Oct 6 12:21:34 1993          | REV: A            |

Fig. 7.060402



FOUO - E9022360

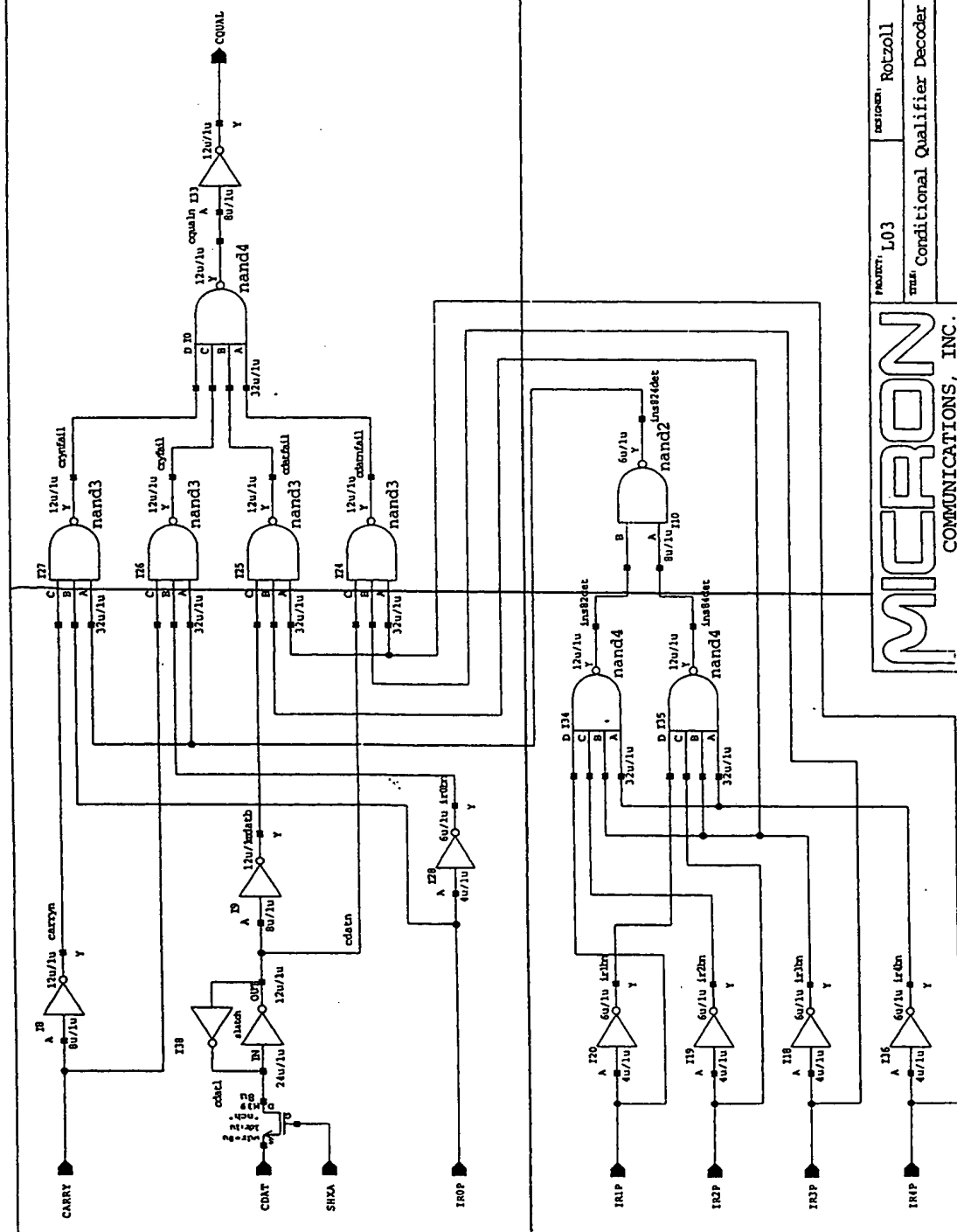
|        |        |
|--------|--------|
| 7.07AA | 7.07AB |
| 7.07BA | 7.07BB |

II II 1.0011



CONFIDENTIAL

FIG. 1.07



**MICRON**  
COMMUNICATIONS, INC.

INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

|                                       |                   |
|---------------------------------------|-------------------|
| PROJECT: L03                          | DESIGNER: Rotzoll |
| STATUS: Conditional Qualifier Decoder |                   |
| MADE: 103reva/cqualdec                | REV: - A          |
| DATE: Nov 17 20:09:12 1993            | SHEET: 1          |

7.08AA

7.08BA

7.08CA

7.08

7.08AA 7.08BA 7.08CA

[illegible]

22

|                                |                |                      |                     |
|--------------------------------|----------------|----------------------|---------------------|
| MICROON                        |                | COMMUNICATIONS, INC. |                     |
| INTEGRATED CIRCUIT DESIGN      |                |                      |                     |
| CONFIDENTIAL INFORMATION       |                |                      |                     |
| model                          | LO3            | revision             | Rev2all             |
| title Database Latch/Precharge |                |                      |                     |
| part                           | 101revc/dbatch | date                 | Oct 1 14:51:49 1993 |
| part                           |                | date                 |                     |

TABLED "E3022860

|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
| 7.09AA | 7.09AB | 7.09AC | 7.09AD | 7.09AE | 7.09AF |
| 7.09BA | 7.09BB | 7.09BC | 7.09BD | 7.09BE | 7.09BF |

EX 11.09

FOOED" ESUEEBOO

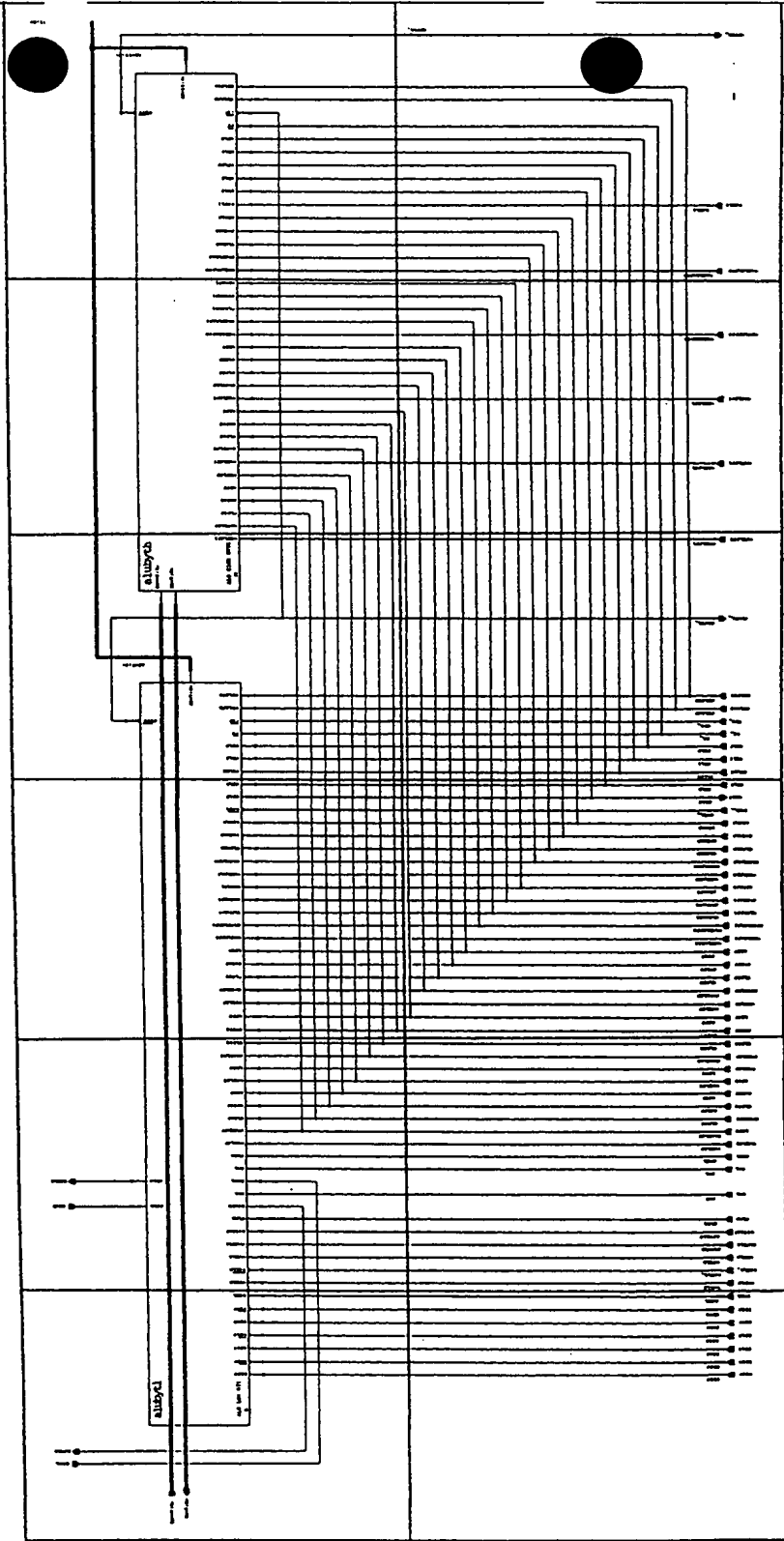


Fig. 7.09

|                 |            |
|-----------------|------------|
| MICRON          |            |
| COMMERCIAL      | INDUSTRIAL |
| EXPERIMENTAL    |            |
| DATE: 11-1-77   |            |
| BY: [Signature] |            |

"FOCUS" SECTION

|          |          |          |          |          |
|----------|----------|----------|----------|----------|
| 7.0901AA | 7.0901AB | 7.0901AC | 7.0901AD | 7.0901AE |
| 7.0901BA | 7.0901BB | 7.0901BC | 7.0901BD | 7.0901BE |
| 7.0901CA | 7.0901CB | 7.0901CC | 7.0901CD | 7.0901CE |

IL 11 11 11 11 11

Fig. 7.0901

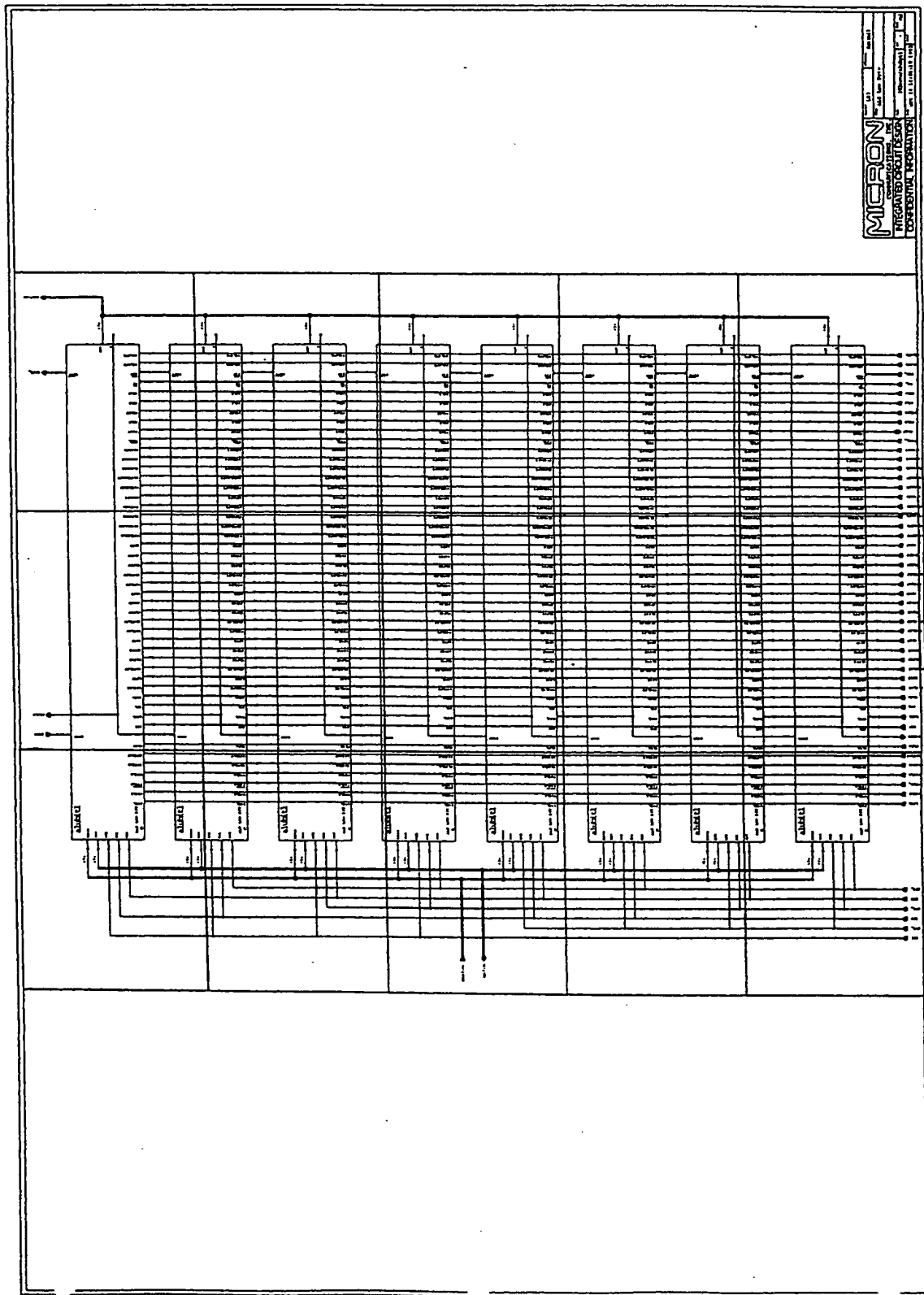


FIG. 7.0901

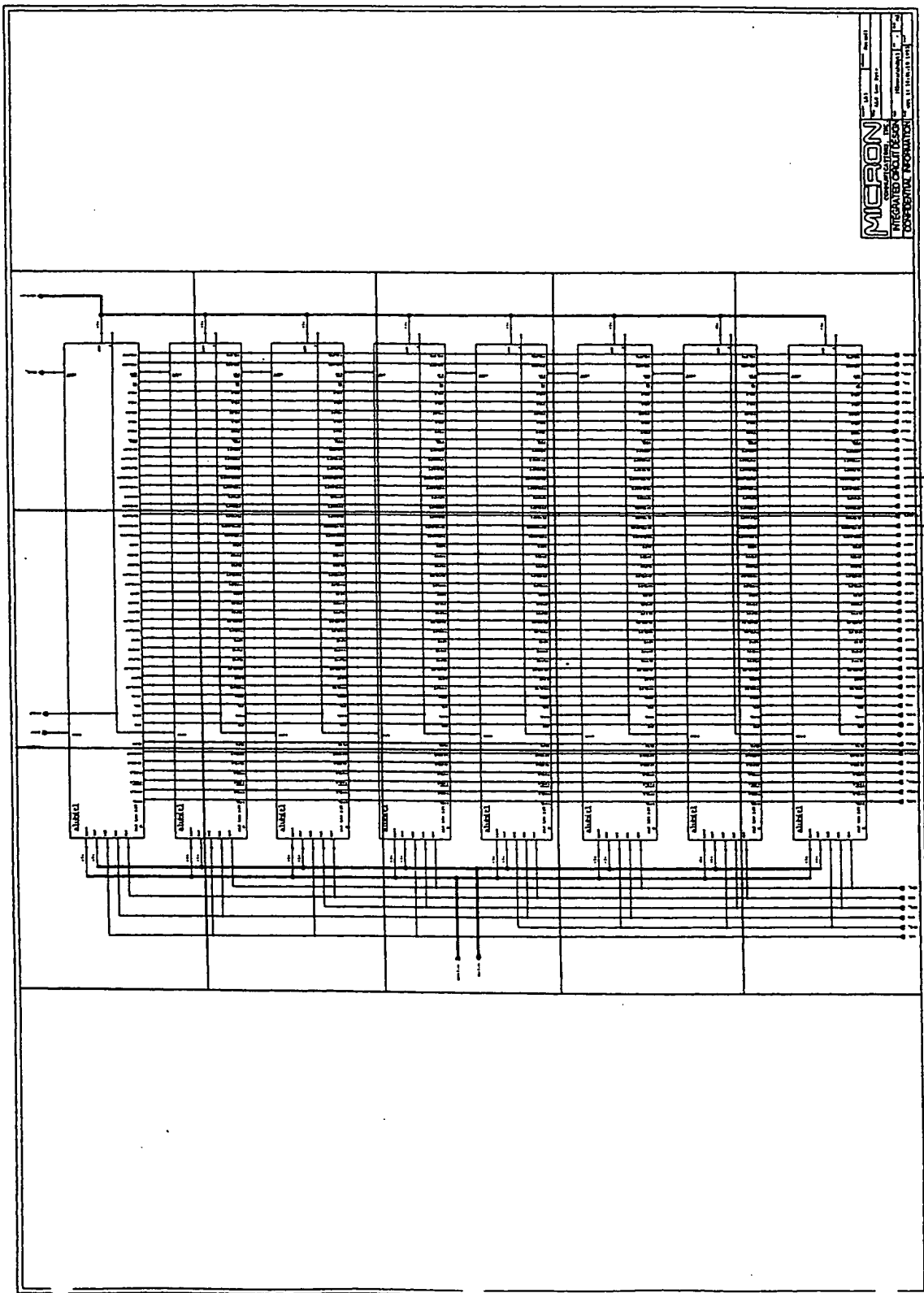


FIG. 7.0901



TABLE 2800

|            |            |            |            |
|------------|------------|------------|------------|
| 7.090101AA | 7.090101AB | 7.090101AC | 7.090101AD |
|------------|------------|------------|------------|

END 7.090101

Fig. 7.090101

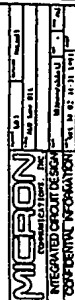






TABLE "E" 2000

|              |              |
|--------------|--------------|
| 7.09010103AA | 7.09010103AB |
|--------------|--------------|

TABLE "E" 2000

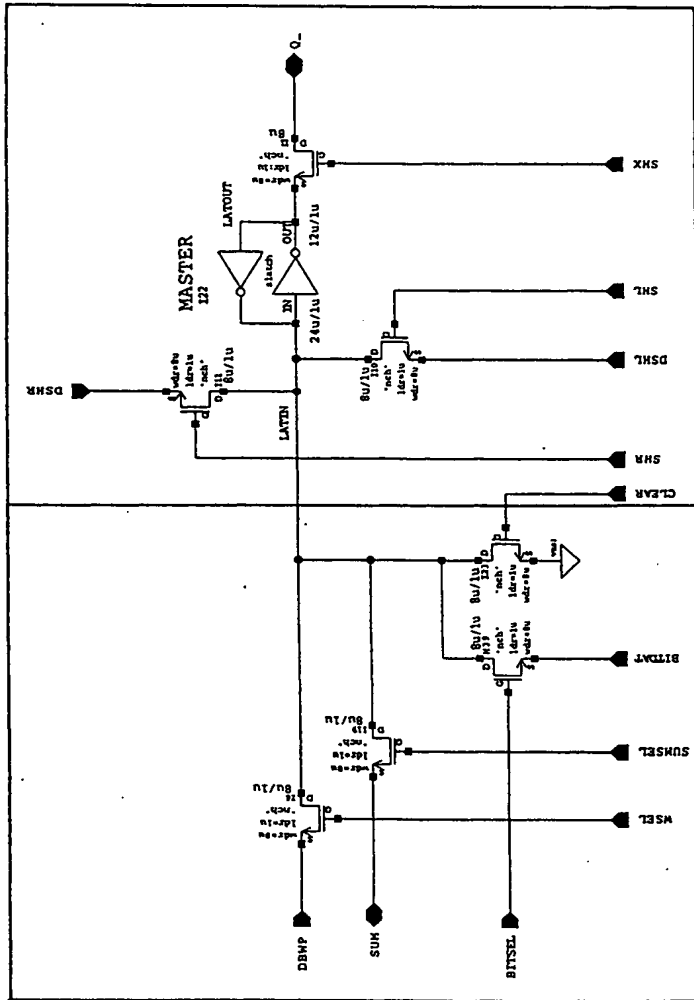


Fig. 7.09010103

|                            |  |              |  |                   |  |
|----------------------------|--|--------------|--|-------------------|--|
| MICRON                     |  | PROJECT: L03 |  | DESIGNER: Rotzoll |  |
| TITLE: ALU A Register Cell |  |              |  |                   |  |
| MFG: 103revA/aluacell      |  |              |  |                   |  |
| DATE: Oct 1 15:41:37 1993  |  |              |  |                   |  |
| INTEGRATED CIRCUIT DESIGN  |  | REV: -       |  | PART: A           |  |
| CONFIDENTIAL INFORMATION   |  | SHEET:       |  |                   |  |

7.09010104AA

|              |              |
|--------------|--------------|
| 7.09010104AA | 7.09010104AB |
|--------------|--------------|

7.09010104

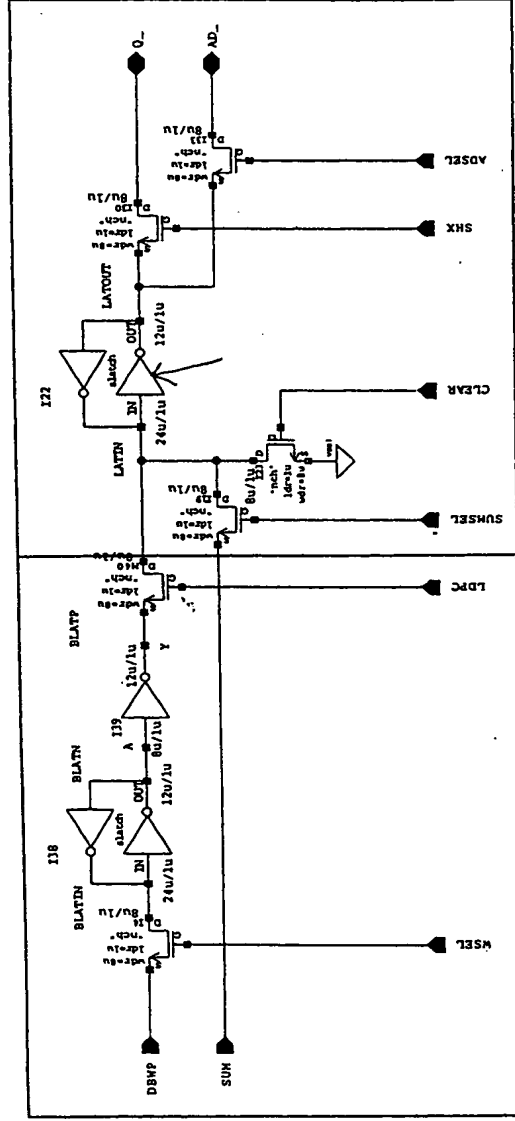
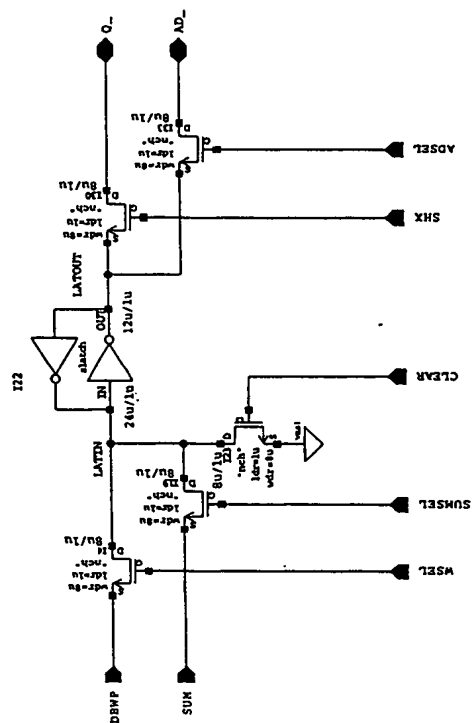


Fig. 7.09010104

|   |  |  |  |                           |                   |
|---|--|--|--|---------------------------|-------------------|
| <div>MICRON</div> <div>COMMUNICATIONS, INC.</div> |  |  |  | PROJECT: L03              | DESIGNER: Rotzoll |
|   |  |  |  | TITLE: ALU Register Cell  |                   |
|   |  |  |  | NUMBER: 103reva/alupc     | REV: - EXX: A     |
|   |  |  |  | DATE: Oct 1 15:45:48 1993 | PAGE: 1           |
| CONFIDENTIAL INFORMATION                          |  |  |  |                           |                   |



Fig. 7.09010105



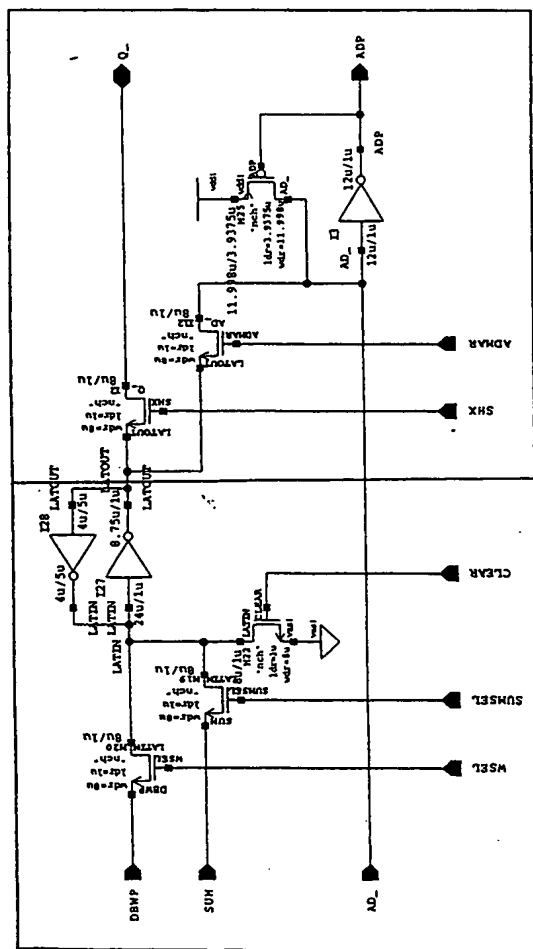
|               |  |                           |                   |
|---------------|--|---------------------------|-------------------|
| <b>MICRON</b> |  | PROJECT: L03              | DESIGNER: Rotzoll |
|               |  | TITLE: ALU Register Cell  |                   |
|               |  |                           |                   |
|               |  | NAME: 103reva/alurcell    | REV: -            |
|               |  | DATE: Oct 1 15:51:03 1993 |                   |
|               |  | PROJECT:                  |                   |

TABLE 2.0

|              |              |
|--------------|--------------|
| 7.09010106AA | 7.09010106AB |
|--------------|--------------|

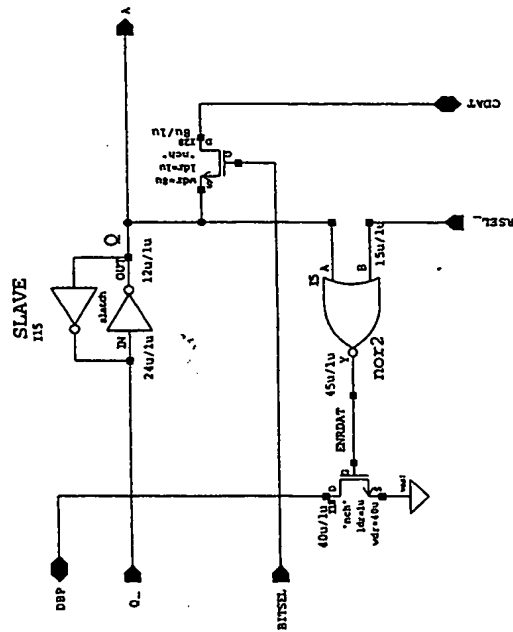
7.09010106

FIG. 7.09010106



**B8: added pch feedback device**

|                           |  |         |                             |          |         |
|---------------------------|--|---------|-----------------------------|----------|---------|
| <b>MICRON</b>             |  | PROJECT | L03                         | DESIGNER | JOTOOLE |
|                           |  | TITLE   | ALU Memory Address Register |          |         |
|                           |  |         |                             |          |         |
|                           |  | NAME    | 103reva/alumar              |          | REV B8  |
|                           |  | DATE    | Jan 4 10:27:28 1996         |          | EXCZ: A |
| INTEGRATED CIRCUIT DESIGN |  |         |                             |          |         |
| CONFIDENTIAL INFORMATION  |  |         |                             |          |         |



|                           |  |                            |                   |
|---------------------------|--|----------------------------|-------------------|
| MICRON                    |  | PROJECT: L03               | DESIGNER: Rotzoll |
| COMMUNICATIONS, INC.      |  | TITLE: ALU Slave Cell      |                   |
| INTEGRATED CIRCUIT DESIGN |  | NAME: 103reva/aluslave     | REV: -            |
| CONFIDENTIAL INFORMATION  |  | DATE: Sep 29 16:09:53 1993 | SHEET: A          |

FIG. 7.09010107

7.09010108AA

|              |              |              |
|--------------|--------------|--------------|
| 7.09010108AA | 7.09010108AB | 7.09010108AC |
| 7.09010108BA | 7.09010108BB | 7.09010108BC |

7.09010108BB



|          |          |          |          |
|----------|----------|----------|----------|
| 7.0902AA | 7.0902AB | 7.0902AC | 7.0902AD |
| 7.0902BA | 7.0902BB | 7.0902BC | 7.0902BD |





7.090201AA 7.090201AB 7.090201AC

|            |            |            |
|------------|------------|------------|
| 7.090201AA | 7.090201AB | 7.090201AC |
|------------|------------|------------|

7.090201

6060 6060 6060

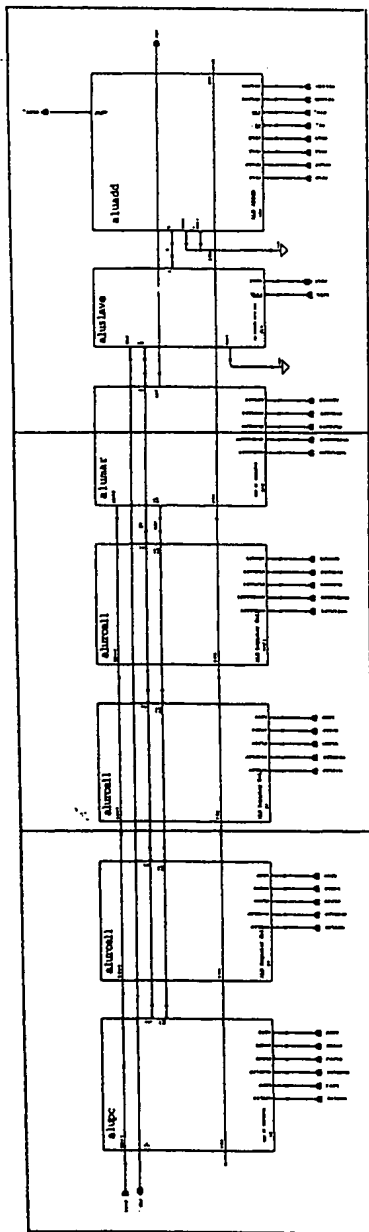
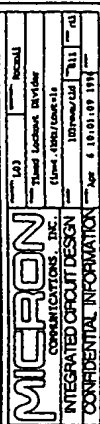
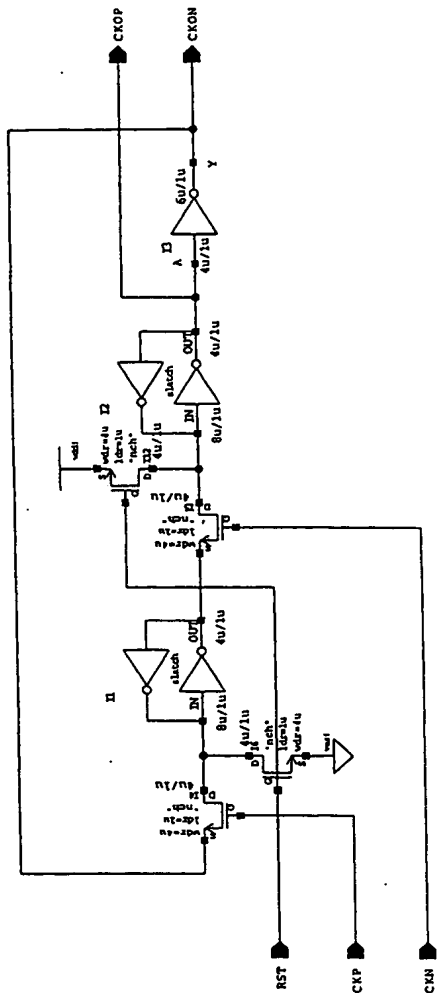


Fig. 7.090201

|        |        |        |
|--------|--------|--------|
| 7.10AA | 7.10AB | 7.10AC |
| 7.10BA | 7.10BB | 7.10BC |
| 7.10CA | 7.10CB | 7.10CC |

II II II





12/29/92

|                                   |  |                            |  |
|-----------------------------------|--|----------------------------|--|
| PROJECT: L03                      |  | DESIGNER: Rotzoll          |  |
| TITLE: Timed Lockout Divider Cell |  | REV: A                     |  |
| NAME: 103revs/lddel               |  | DATE: Sep 22 15:26:56 1994 |  |
| CONFIDENTIAL INFORMATION          |  | CONFIDENTIAL               |  |

Fig. 7.1001

FOUO" E9022869

|  |  |
|--|--|
|  |  |
|--|--|

7.11AB

7.11AA

Ex 7.11

Rev. 2302300

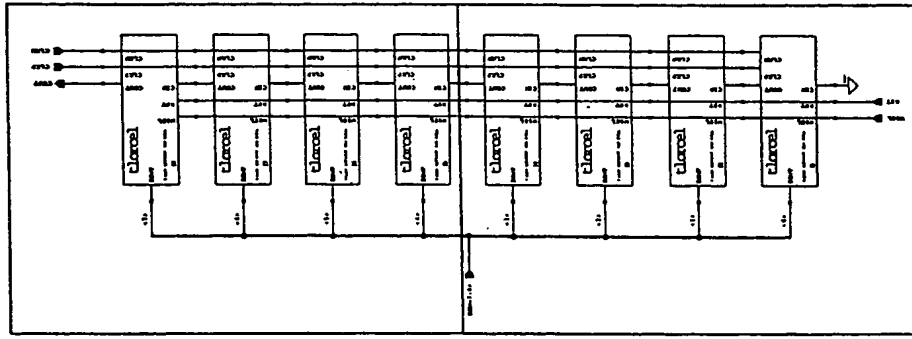


FIG. 7.11

|                                |                 |
|--------------------------------|-----------------|
| <b>MICRON</b>                  |                 |
| COMMUNICATIONS, INC.           |                 |
| INTEGRATED CIRCUIT DESIGN      |                 |
| CONFIDENTIAL INFORMATION       |                 |
| Part No.                       | 1471            |
| Rev.                           | 1.0             |
| Design                         | 1011rev/1/10/80 |
| Doc.                           | 1.11.05.117.110 |
| Title: Titled Lockout Register |                 |

7.1101AA 7.1101AB 7.1101AC

|          |          |          |
|----------|----------|----------|
| 7.1101AA | 7.1101AB | 7.1101AC |
|----------|----------|----------|

II II II II II



TOP SECRET

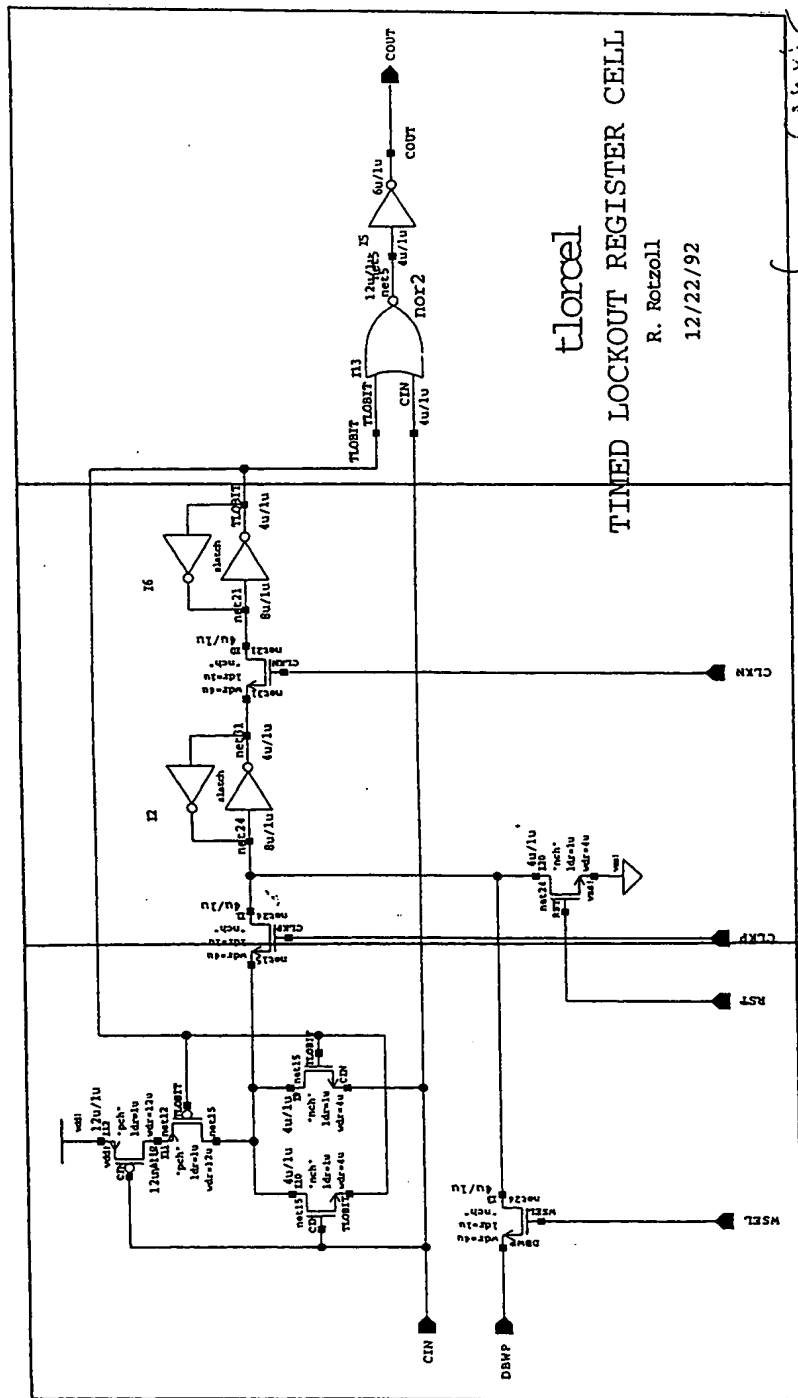


FIG. 7.1101

down counter



Fig. 7.12

# 2000 ZEPHYRUS

COMMUNICATIONS, INC.  
INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

|               |                     |
|---------------|---------------------|
| PROJECT, 1.03 | DEPARTMENT, ROTZOLL |
|---------------|---------------------|

| NAME                 | ADDRESS  | DATA     |
|----------------------|----------|----------|
| R/W Control Register | 00000000 | 00000000 |

|                      |        |         |
|----------------------|--------|---------|
| 101eva/oreg          | REV. - | SIZ. ml |
| Nov 12 09:44:40 1993 |        |         |









R. Rotzoll

Fig. 7.1301

Fig. 7.1301

FOUO "FOUO"

|        |        |
|--------|--------|
| 7.14AA | 7.14AB |
|--------|--------|

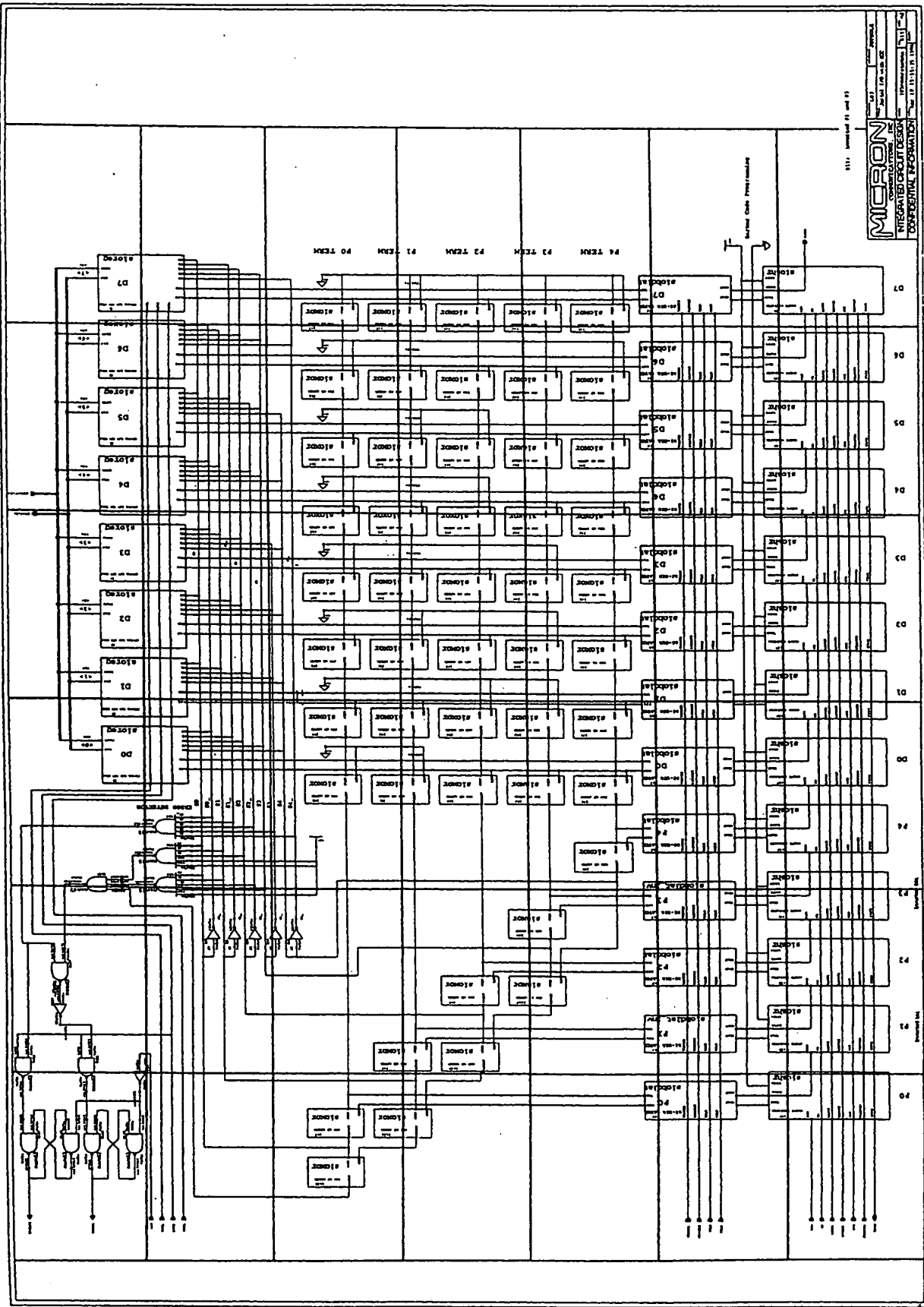
II II II







FIG. 7, 1401



1401 Integrated P1 and P2  
MICRON  
INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

1401 Integrated P1 and P2

7.140101AA

|            |            |
|------------|------------|
| 7.140101AA | 7.140101AB |
|------------|------------|

7.140101AA



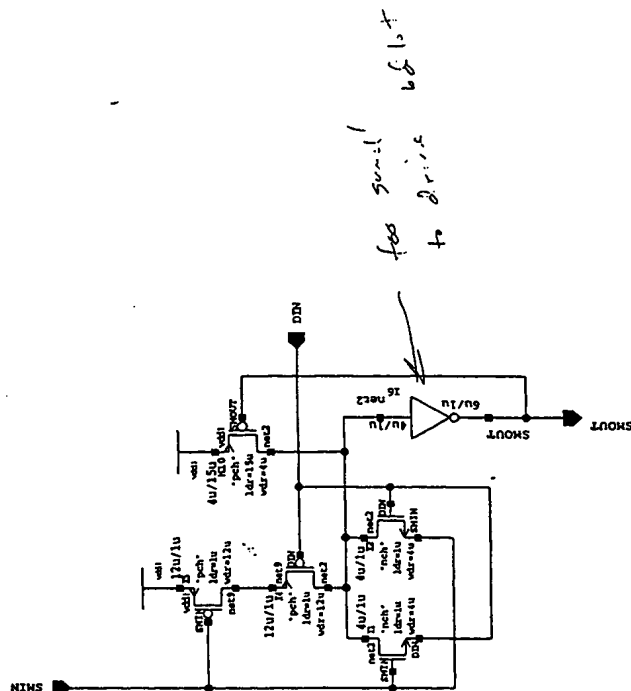
[illegible]

Fig. 7.190102

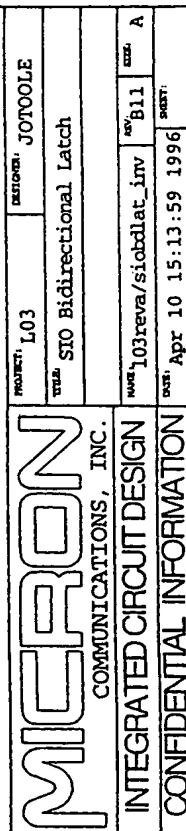
|                           |  |                           |                 |
|---------------------------|--|---------------------------|-----------------|
| <b>MICRON</b>             |  | PROJECT: L03              | DESIGN: JOTOOLE |
| COMMUNICATIONS, INC.      |  | TITLE: SIO XOR            |                 |
|                           |  |                           |                 |
|                           |  | NAME: 103reva/sioxor      | REV: B1         |
|                           |  | DATE: Sep 1 18:07:22 1994 |                 |
|                           |  | SHEET: A                  |                 |
| INTEGRATED CIRCUIT DESIGN |  |                           |                 |
| CONFIDENTIAL INFORMATION  |  |                           |                 |

7.140103AA

|            |            |
|------------|------------|
| 7.140103AA | 7.140103AB |
|------------|------------|

7.140103AB

Fig. 7.140103



B11: inverted bit

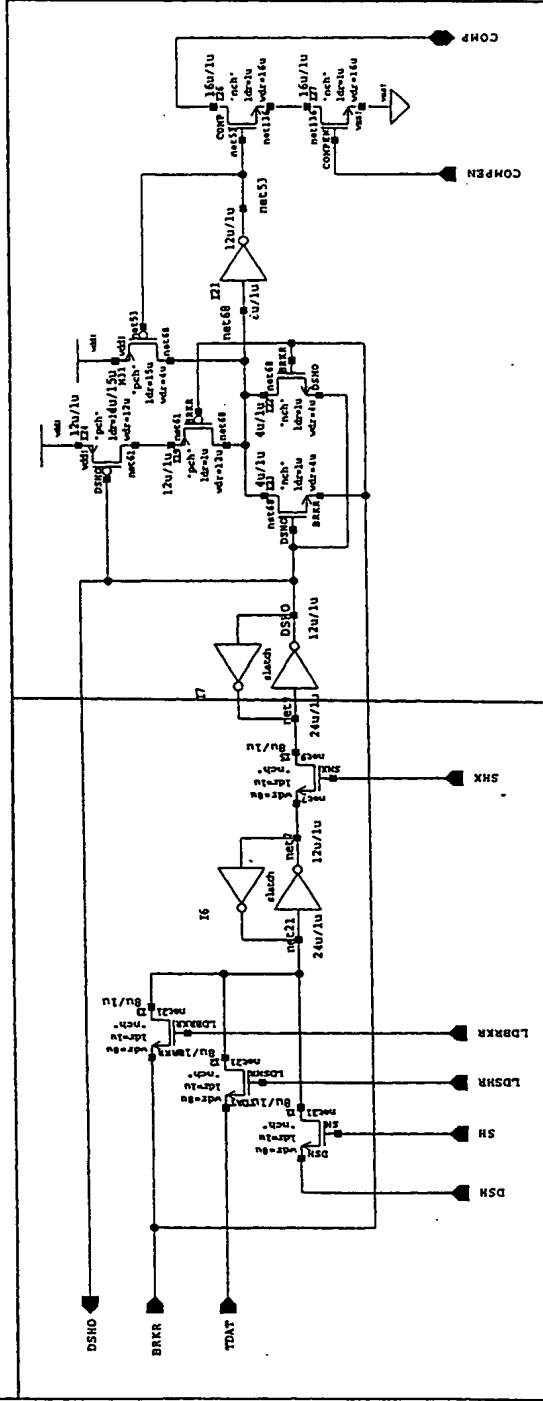


7.140104AA

|            |            |
|------------|------------|
| 7.140104AA | 7.140104AB |
|------------|------------|

7.140104AB

7140104



7140104

Fig. 7.140104

|                           |  |                   |  |
|---------------------------|--|-------------------|--|
| PROJECT: L03              |  | CUSTOMER: JOTOOLE |  |
| TITLE: SIO Shift Register |  |                   |  |
| NAME: 103reva/sioshr      |  | REV: B1           |  |
| DATE: Sep 2 08:06:26 1994 |  | SHEET: A          |  |

**MICRON**  
COMMUNICATIONS, INC.  
INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

7.140105AA

|            |            |
|------------|------------|
| 7.140105AA | 7.140105AB |
|------------|------------|

7.140105





009: added mapping to job path  
deleted 008229

010: updated the inventory in 9

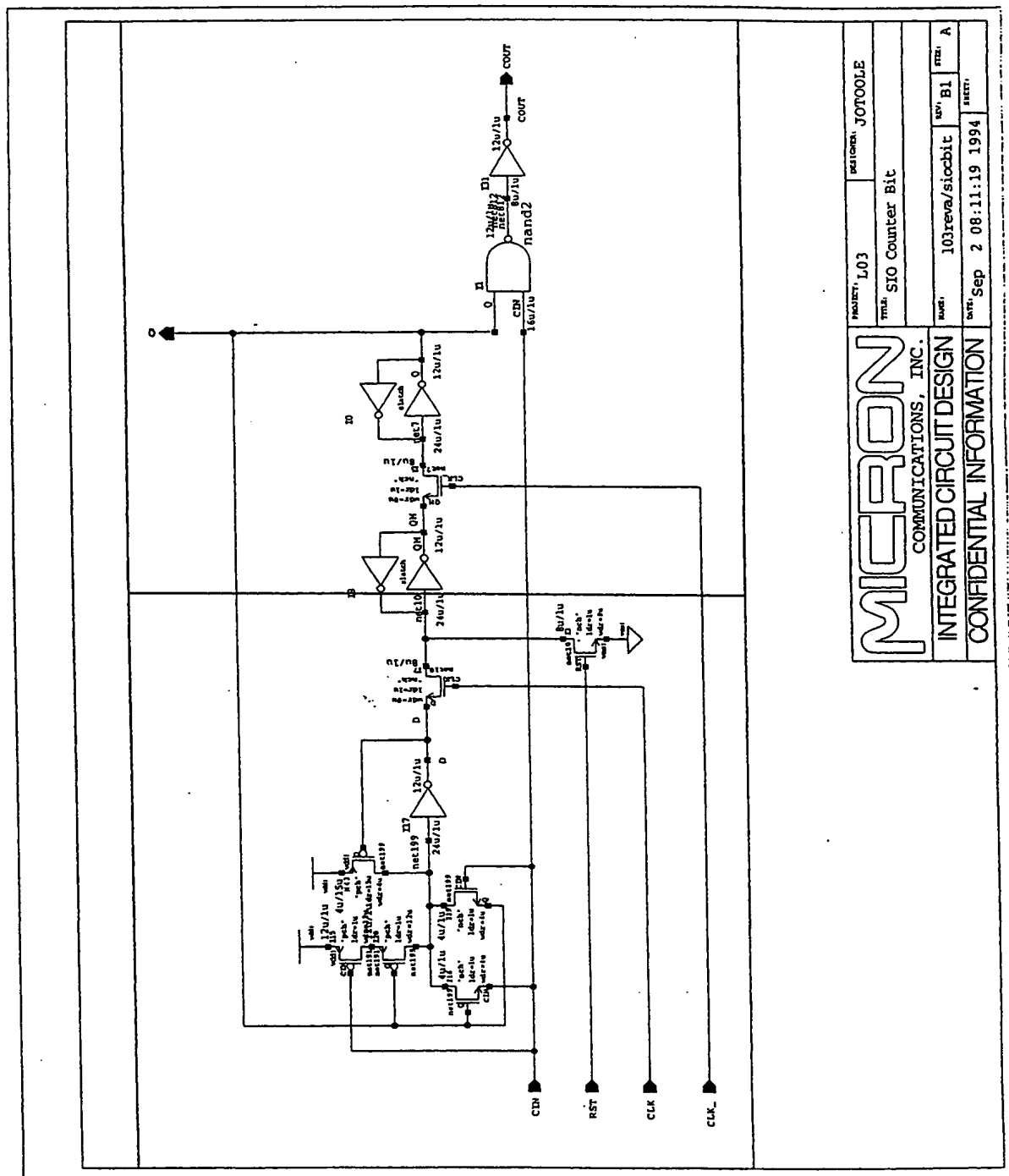
011: brought in every good thing

7.140201AA

|            |            |
|------------|------------|
| 7.140201AA | 7.140201AB |
|------------|------------|

EX 7.140201

**0** **1** **2** **3** **4** **5** **6** **7** **8** **9**



201  
FIG. 7.140 ~~104~~

三

# NOORIS

COMMUNICATIONS, INC.

**INTEGRATED CIRCUIT DESIGN**

**CONFIDENTIAL INFORMATION**

|              |                   |
|--------------|-------------------|
| PROJECT, L03 | DESIGNER, JOTOOLE |
|--------------|-------------------|

|              |                   |
|--------------|-------------------|
| PROJECT, L03 | DESIGNER, JOTOOLE |
|--------------|-------------------|

| Pin No. | Pin Name | Pin Description |
|---------|----------|-----------------|
| 1       | VCC      | Power Supply    |
| 2       | NC       | No Connection   |
| 3       | NC       | No Connection   |
| 4       | NC       | No Connection   |
| 5       | NC       | No Connection   |
| 6       | NC       | No Connection   |
| 7       | NC       | No Connection   |
| 8       | NC       | No Connection   |
| 9       | NC       | No Connection   |
| 10      | NC       | No Connection   |
| 11      | NC       | No Connection   |
| 12      | NC       | No Connection   |
| 13      | NC       | No Connection   |
| 14      | NC       | No Connection   |
| 15      | NC       | No Connection   |
| 16      | NC       | No Connection   |
| 17      | NC       | No Connection   |
| 18      | NC       | No Connection   |
| 19      | NC       | No Connection   |
| 20      | NC       | No Connection   |
| 21      | NC       | No Connection   |
| 22      | NC       | No Connection   |
| 23      | NC       | No Connection   |
| 24      | NC       | No Connection   |
| 25      | NC       | No Connection   |
| 26      | NC       | No Connection   |
| 27      | NC       | No Connection   |
| 28      | NC       | No Connection   |
| 29      | NC       | No Connection   |
| 30      | NC       | No Connection   |
| 31      | NC       | No Connection   |
| 32      | NC       | No Connection   |
| 33      | NC       | No Connection   |
| 34      | NC       | No Connection   |
| 35      | NC       | No Connection   |
| 36      | NC       | No Connection   |
| 37      | NC       | No Connection   |
| 38      | NC       | No Connection   |
| 39      | NC       | No Connection   |
| 40      | NC       | No Connection   |
| 41      | NC       | No Connection   |
| 42      | NC       | No Connection   |
| 43      | NC       | No Connection   |
| 44      | NC       | No Connection   |
| 45      | NC       | No Connection   |
| 46      | NC       | No Connection   |
| 47      | NC       | No Connection   |
| 48      | NC       | No Connection   |
| 49      | NC       | No Connection   |
| 50      | NC       | No Connection   |
| 51      | NC       | No Connection   |
| 52      | NC       | No Connection   |
| 53      | NC       | No Connection   |
| 54      | NC       | No Connection   |
| 55      | NC       | No Connection   |
| 56      | NC       | No Connection   |
| 57      | NC       | No Connection   |
| 58      | NC       | No Connection   |
| 59      | NC       | No Connection   |
| 60      | NC       | No Connection   |
| 61      | NC       | No Connection   |
| 62      | NC       | No Connection   |
| 63      | NC       | No Connection   |
| 64      | NC       | No Connection   |
| 65      | NC       | No Connection   |
| 66      | NC       | No Connection   |
| 67      | NC       | No Connection   |
| 68      | NC       | No Connection   |
| 69      | NC       | No Connection   |
| 70      | NC       | No Connection   |
| 71      | NC       | No Connection   |
| 72      | NC       | No Connection   |
| 73      | NC       | No Connection   |
| 74      | NC       | No Connection   |
| 75      | NC       | No Connection   |
| 76      | NC       | No Connection   |
| 77      | NC       | No Connection   |
| 78      | NC       | No Connection   |
| 79      | NC       | No Connection   |
| 80      | NC       | No Connection   |
| 81      | NC       | No Connection   |
| 82      | NC       | No Connection   |
| 83      | NC       | No Connection   |
| 84      | NC       | No Connection   |
| 85      | NC       | No Connection   |
| 86      | NC       | No Connection   |
| 87      | NC       | No Connection   |
| 88      | NC       | No Connection   |
| 89      | NC       | No Connection   |
| 90      | NC       | No Connection   |
| 91      | NC       | No Connection   |
| 92      | NC       | No Connection   |
| 93      | NC       | No Connection   |
| 94      | NC       | No Connection   |
| 95      | NC       | No Connection   |
| 96      | NC       | No Connection   |
| 97      | NC       | No Connection   |
| 98      | NC       | No Connection   |
| 99      | NC       | No Connection   |
| 100     | NC       | No Connection   |
| 101     | NC       | No Connection   |
| 102     | NC       | No Connection   |
| 103     | NC       | No Connection   |
| 104     | NC       | No Connection   |
| 105     | NC       | No Connection   |
| 106     | NC       | No Connection   |
| 107     | NC       | No Connection   |
| 108     | NC       | No Connection   |
| 109     | NC       | No Connection   |
| 110     | NC       | No Connection   |
| 111     | NC       | No Connection   |
| 112     | NC       | No Connection   |
| 113     | NC       | No Connection   |
| 114     | NC       | No Connection   |
| 115     | NC       | No Connection   |
| 116     | NC       | No Connection   |
| 117     | NC       | No Connection   |
| 118     | NC       | No Connection   |
| 119     | NC       | No Connection   |
| 120     | NC       | No Connection   |
| 121     | NC       | No Connection   |
| 122     | NC       | No Connection   |
| 123     | NC       | No Connection   |
| 124     | NC       | No Connection   |
| 125     | NC       | No Connection   |
| 126     | NC       | No Connection   |
| 127     | NC       | No Connection   |
| 128     | NC       | No Connection   |
| 129     | NC       | No Connection   |
| 130     | NC       | No Connection   |
| 131     | NC       | No Connection   |
| 132     | NC       | No Connection   |
| 133     | NC       | No Connection   |
| 134     | NC       | No Connection   |
| 135     | NC       | No Connection   |
| 136     | NC       | No Connection   |
| 137     | NC       | No Connection   |
| 138     | NC       | No Connection   |
| 139     | NC</     |                 |

|                 |         |        |
|-----------------|---------|--------|
| 103reva/siocbit | REV, B1 | STZ, A |
|-----------------|---------|--------|

|                 |         |        |
|-----------------|---------|--------|
| 103reva/siocbit | REV, B1 | STZ, A |
|-----------------|---------|--------|

|                 |         |        |
|-----------------|---------|--------|
| 103reva/siocbit | REV, B1 | STZ, A |
|-----------------|---------|--------|

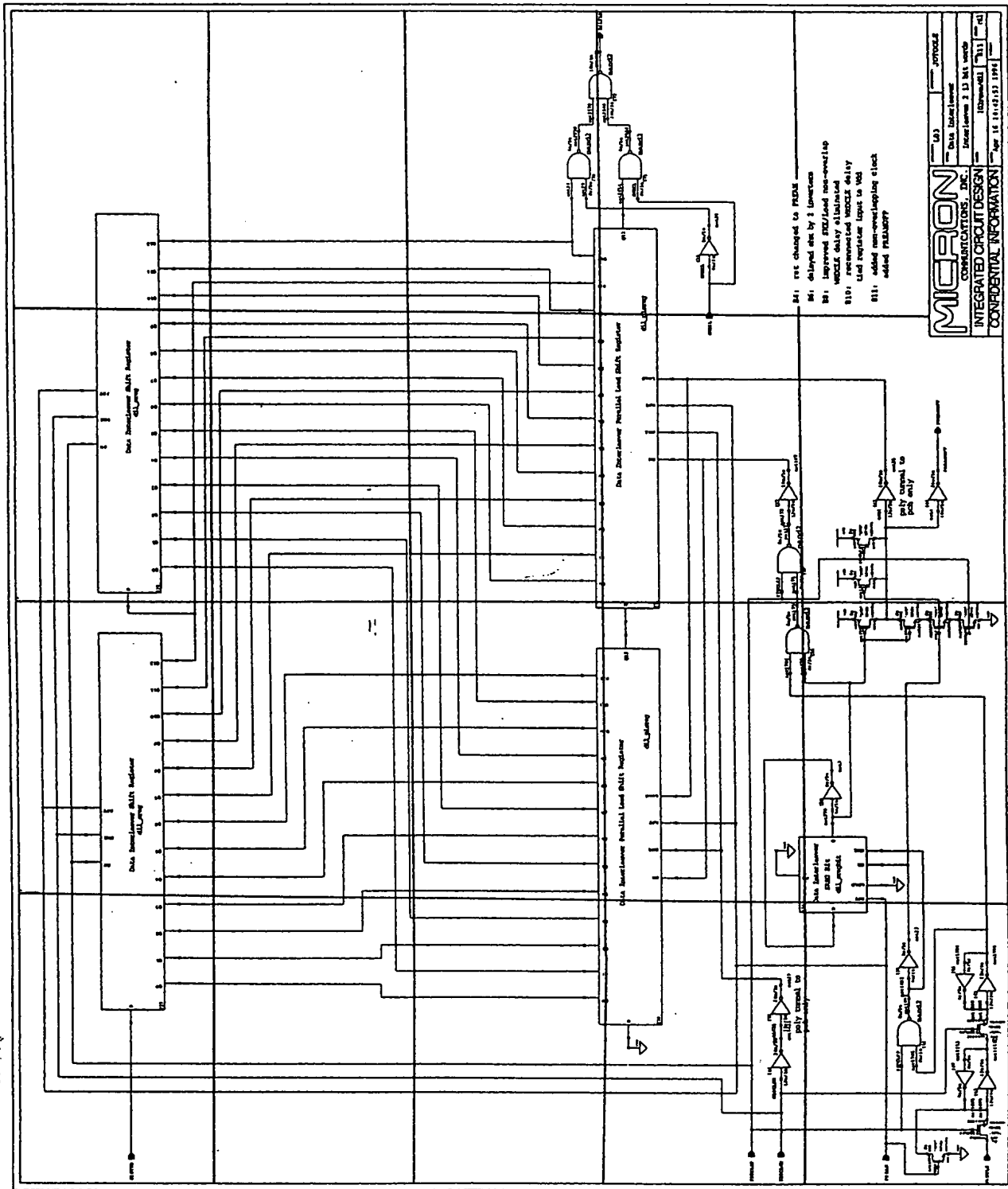
DATE, Sep 2 08:11:19 1994

DATE, Sep 2 08:11:19 1994



|        |        |        |        |
|--------|--------|--------|--------|
| 7.15AA | 7.15AB | 7.15AC | 7.15AD |
| 7.15BA | 7.15BB | 7.15BC | 7.15BD |
| 7.15CA | 7.15CB | 7.15CC | 7.15CD |
| 7.15DA | 7.15DB | 7.15DC | 7.15DD |
| 7.15EA | 7.15EB | 7.15EC |        |

Fig. 7.15



**micron**  
COMMUNICATIONS, INC.  
INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

7.1501AA

7.1501BA

7.1501CA

Fig 7.1501

602220 602220 602220

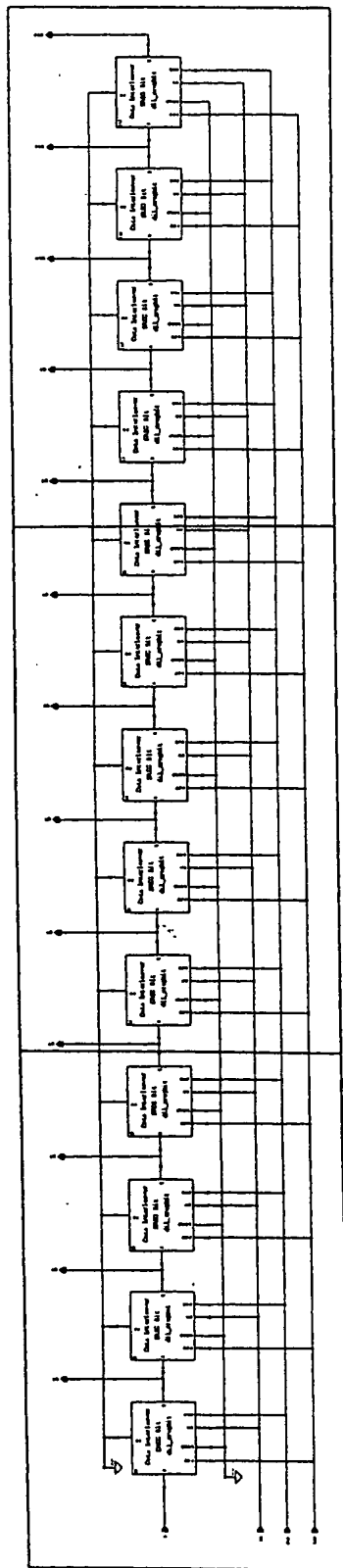
[illegible]

FIG. 7.1501

7.1502AA

7.1502BA

7.1502CA

Fig 7.1502

2025-03-20 10:20:20

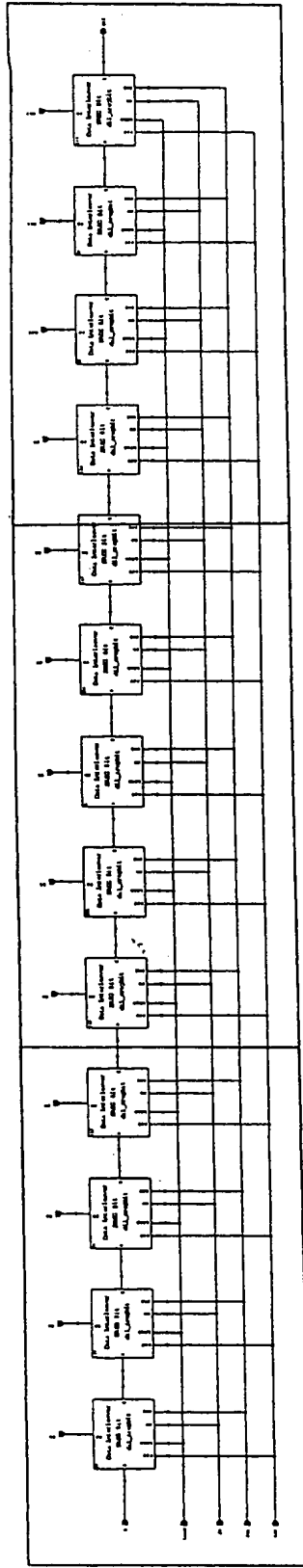
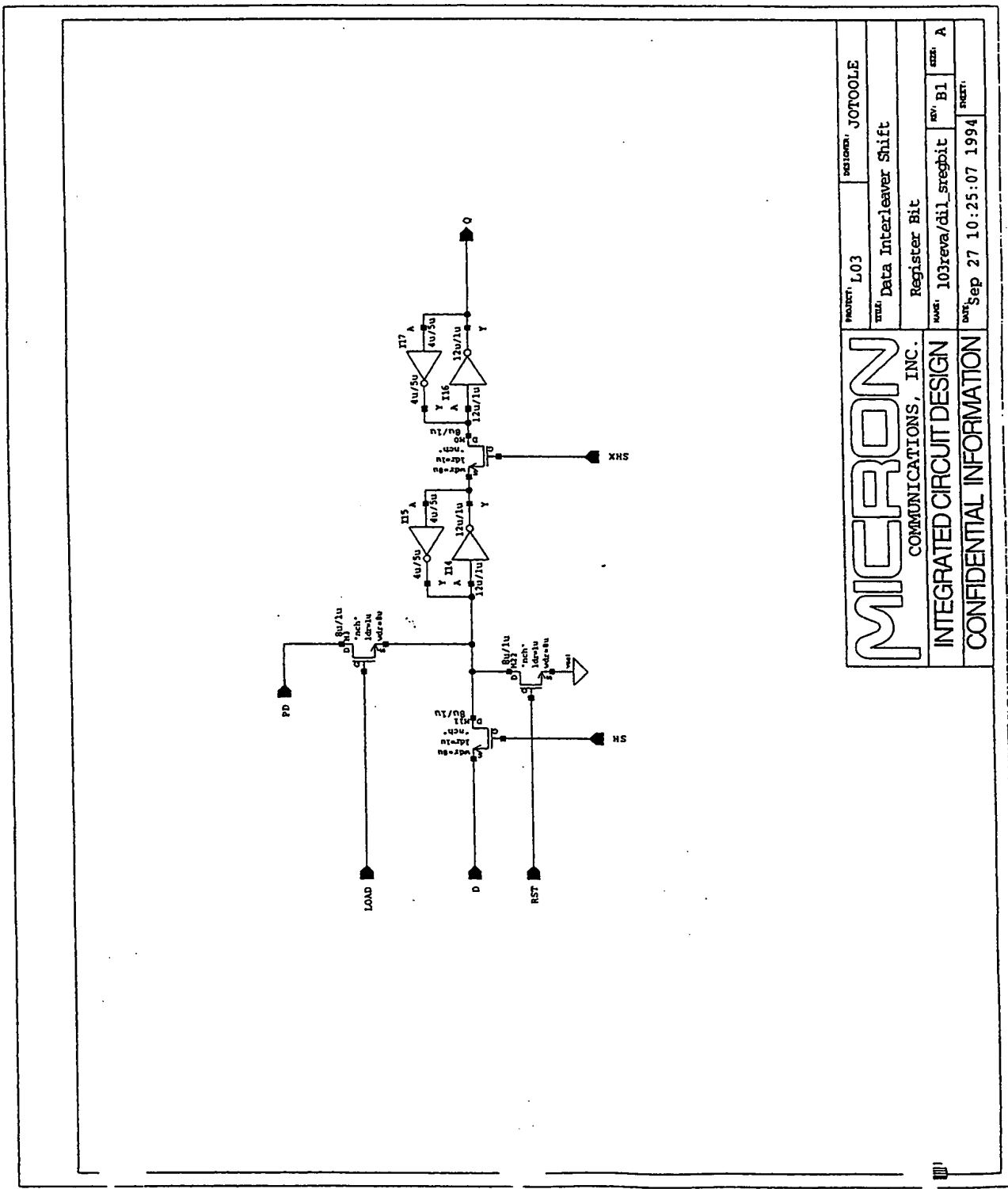


Fig. 7.1502

|                     |         |
|---------------------|---------|
| MICRON              |         |
| INTEGRATED CIRCUITS | PRODUCT |
| DATA SHEET          | 1502    |
| DATE                | 1970    |
| REVISION            | 1       |
| DESIGNER            | ...     |
| CHECKED             | ...     |
| APPROVED            | ...     |

FIG. 7.150201

FIG. 7.150201



|                              |  |                   |         |
|------------------------------|--|-------------------|---------|
| PROJECT: L03                 |  | DESIGNER: JOTOOLE |         |
| TITLE: Data Interleave Shift |  | Register Bit      |         |
| NAME: 103reva/dil_sregbit    |  | REV: B1           | SIZE: A |
| DATE: Sep 27 10:25:07 1994   |  | PAGE: 1           |         |

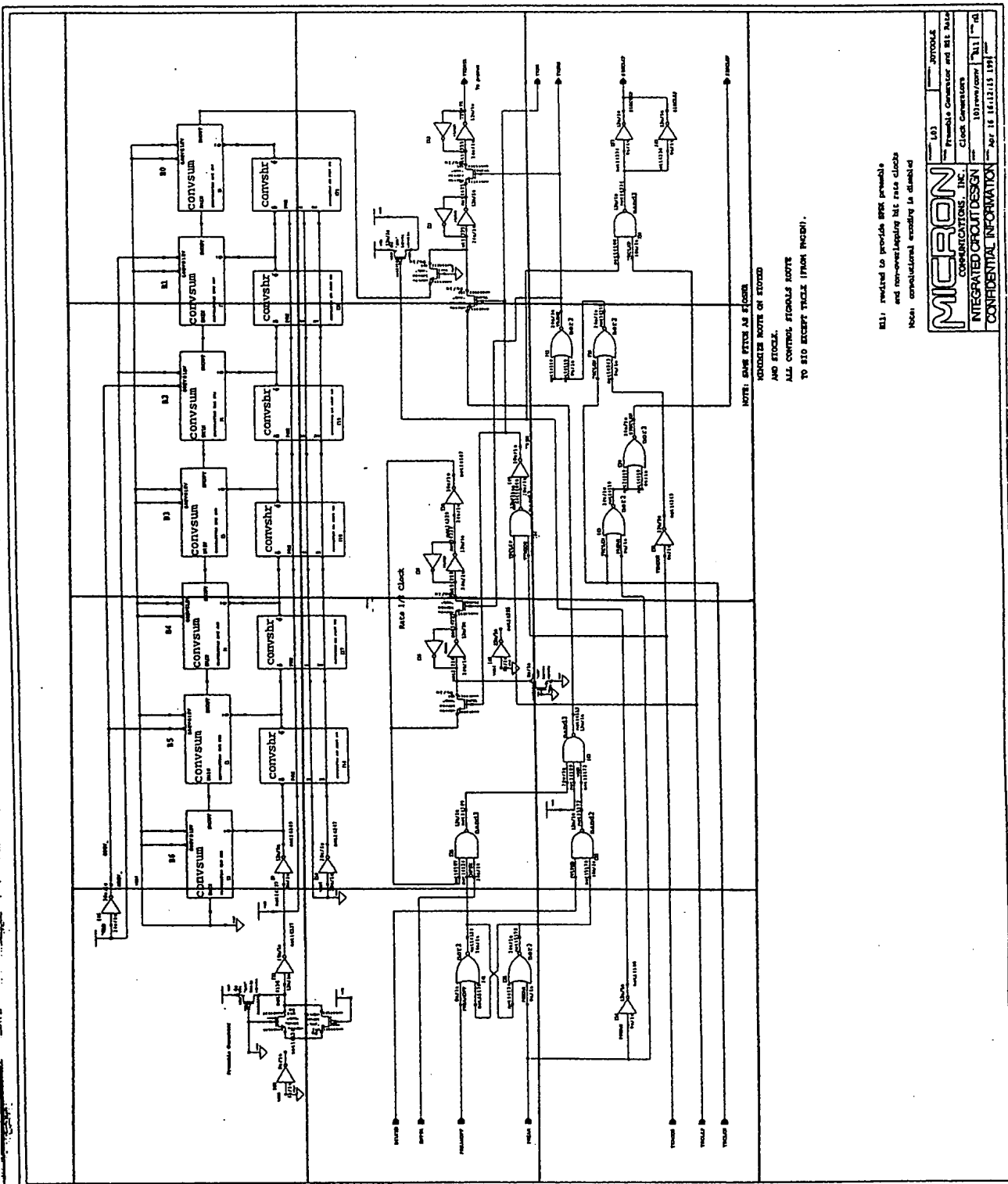
FOREF "E3022200

|        |        |        |        |
|--------|--------|--------|--------|
| 7.16AA | 7.16AB | 7.16AC | 7.16AD |
| 7.16BA | 7.16BB | 7.16BC | 7.16BD |
| 7.16CA | 7.16CB | 7.16CC | 7.16CD |

IL 11 11 11.11.11



Fig. 7.16



ALL: required to provide BSR, parallel  
 and non-overlapping bit rate clocks  
 Note: conventional encoding is disabled

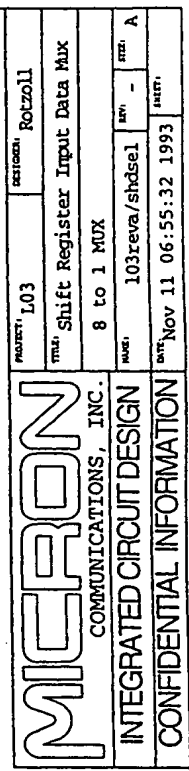
|                           |  |            |            |
|---------------------------|--|------------|------------|
| <b>MICRON</b>             |  | 163        | JOYCE      |
| MICRON TECHNOLOGY, INC.   |  | 1010000000 | 1010000000 |
| INTEGRATED CIRCUIT DESIGN |  | 1010000000 | 1010000000 |
| CONFIDENTIAL INFORMATION  |  | 1010000000 | 1010000000 |







Fig. 7.17



FOUO - E902260

|        |        |        |
|--------|--------|--------|
| 7.18AA | 7.18AB | 7.18AC |
| 7.18BA | 7.18BB | 7.18BC |
| 7.18CA | 7.18CB | 7.18CC |

IL 00 7.18B

CONFIDENTIAL

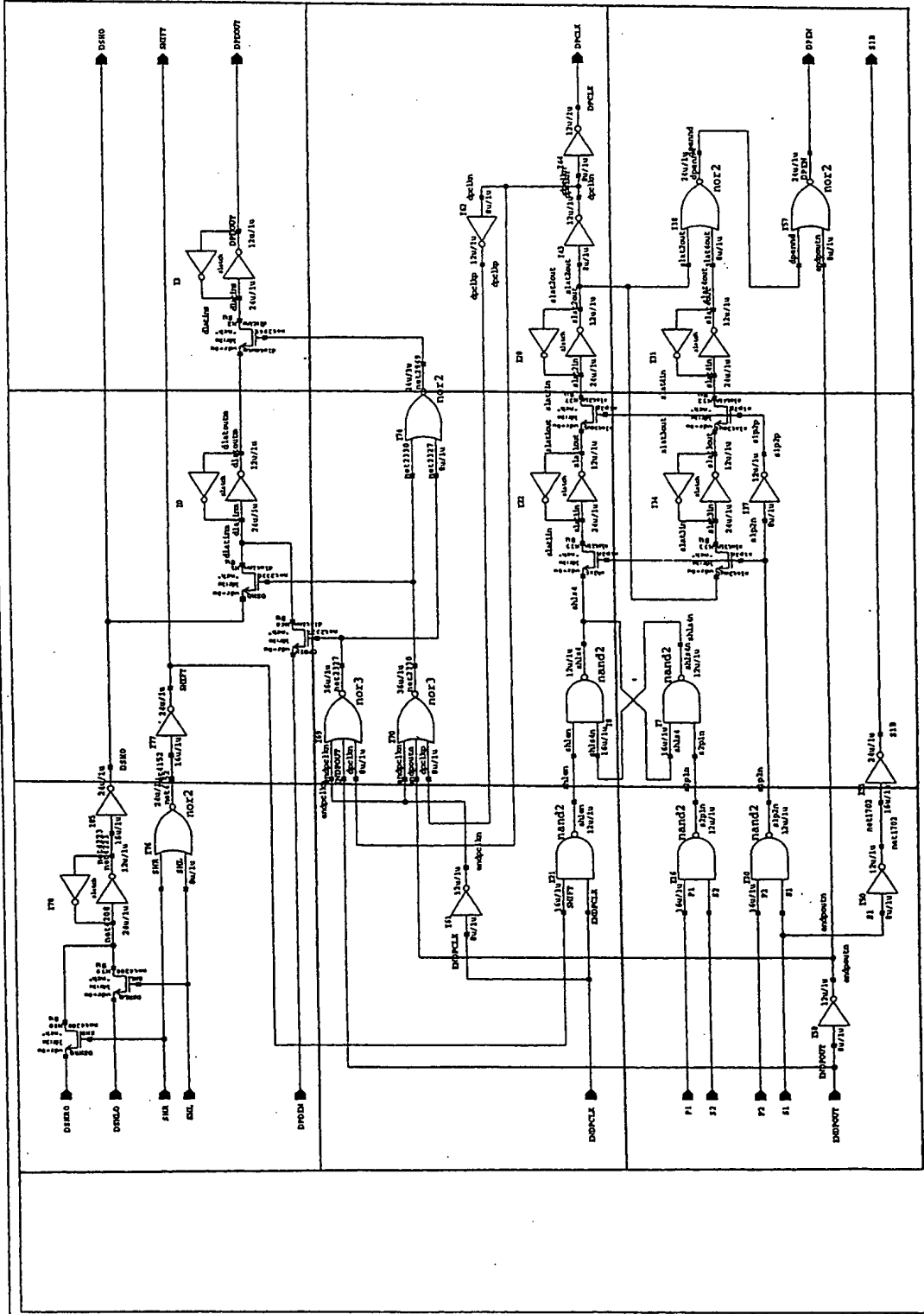




Fig. 7.18

|                           |  |                                |              |
|---------------------------|--|--------------------------------|--------------|
| MICRON                    |  | PROJECT 1.03                   | REVISION 103 |
| COMMUNICATIONS, INC.      |  | Digital Port Output Controller |              |
| INTEGRATED CIRCUIT DESIGN |  | DATE                           | REV          |
| CONFIDENTIAL INFORMATION  |  | 103revs/output                 | ml           |
|                           |  | Nov 12 10:05:40 1993           | ml           |

FOUO E30E2850

|     |     |
|-----|-----|
| 8AA | 8AB |
| 8BA | 8BB |
| 8CA | 8CB |

IE II  





|        |        |        |        |        |
|--------|--------|--------|--------|--------|
| 8.01AA | 8.01AB | 8.01AC | 8.01AD | 8.01AE |
| 8.01BA | 8.01BB | 8.01BC | 8.01BD | 8.01BE |
| 8.01CA | 8.01CB | 8.01CC | 8.01CD | 8.01CE |
| 8.01DA | 8.01DB | 8.01DC | 8.01DD | 8.01DE |

[illegible]

03: corrected listing  
noted discrepancies with  
06: created KIDS, modified  
07: corrected listing to c

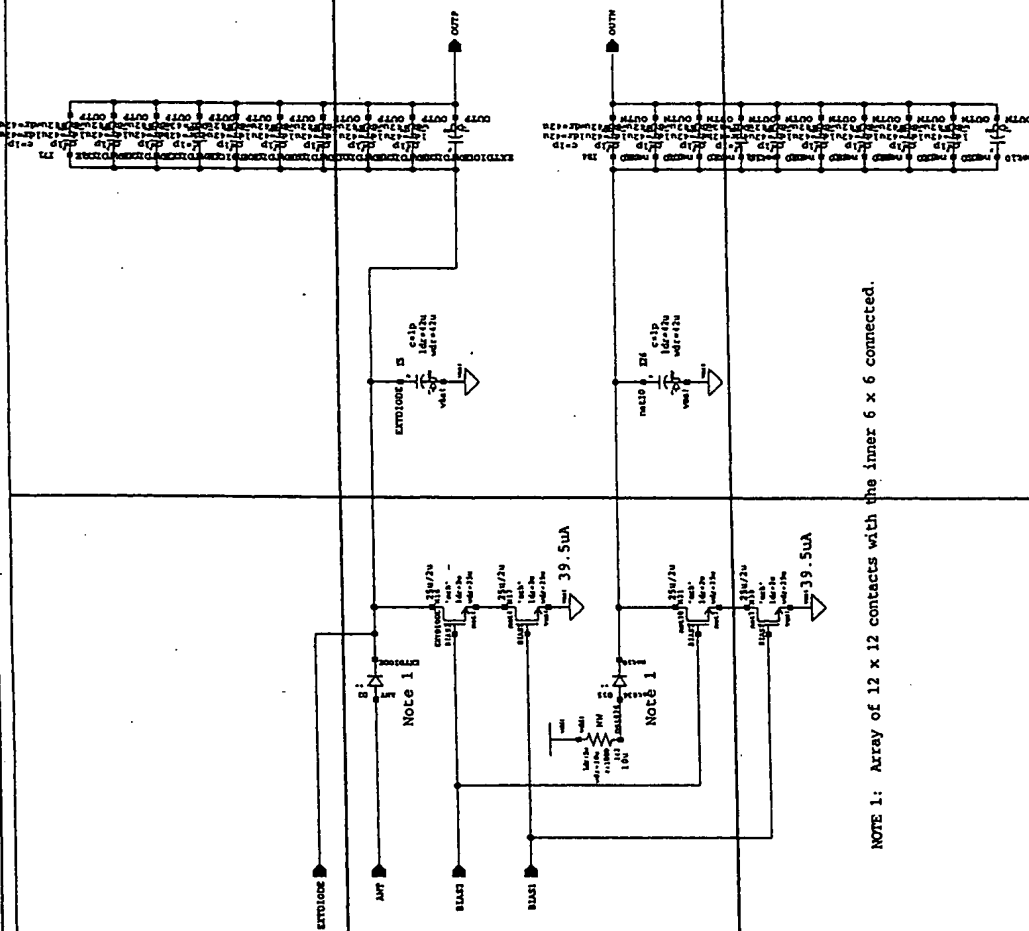
1. Create a sequence table from the past to the detectors, editor, and reporters: the computers and the digital logic are not concerned as this has
2. Arrange them more sequentially -- as tablet layout.
3. Create algorithms to fix.

|                           |          |
|---------------------------|----------|
| <b>MICRON</b>             |          |
| CONSULTATIONS, INC.       |          |
| INTEGRATED CIRCUIT DESIGN |          |
| CONSULTING CORPORATION    |          |
| DATE                      | 10/10/81 |
| BY                        | 10/10/81 |
| FOR                       | 10/10/81 |
| APPROVED                  | 10/10/81 |

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED

|          |          |
|----------|----------|
| 8.0101AA | 8.0101AB |
| 8.0101BA | 8.0101BB |
| 8.0101CA | 8.0101CB |

SECRET



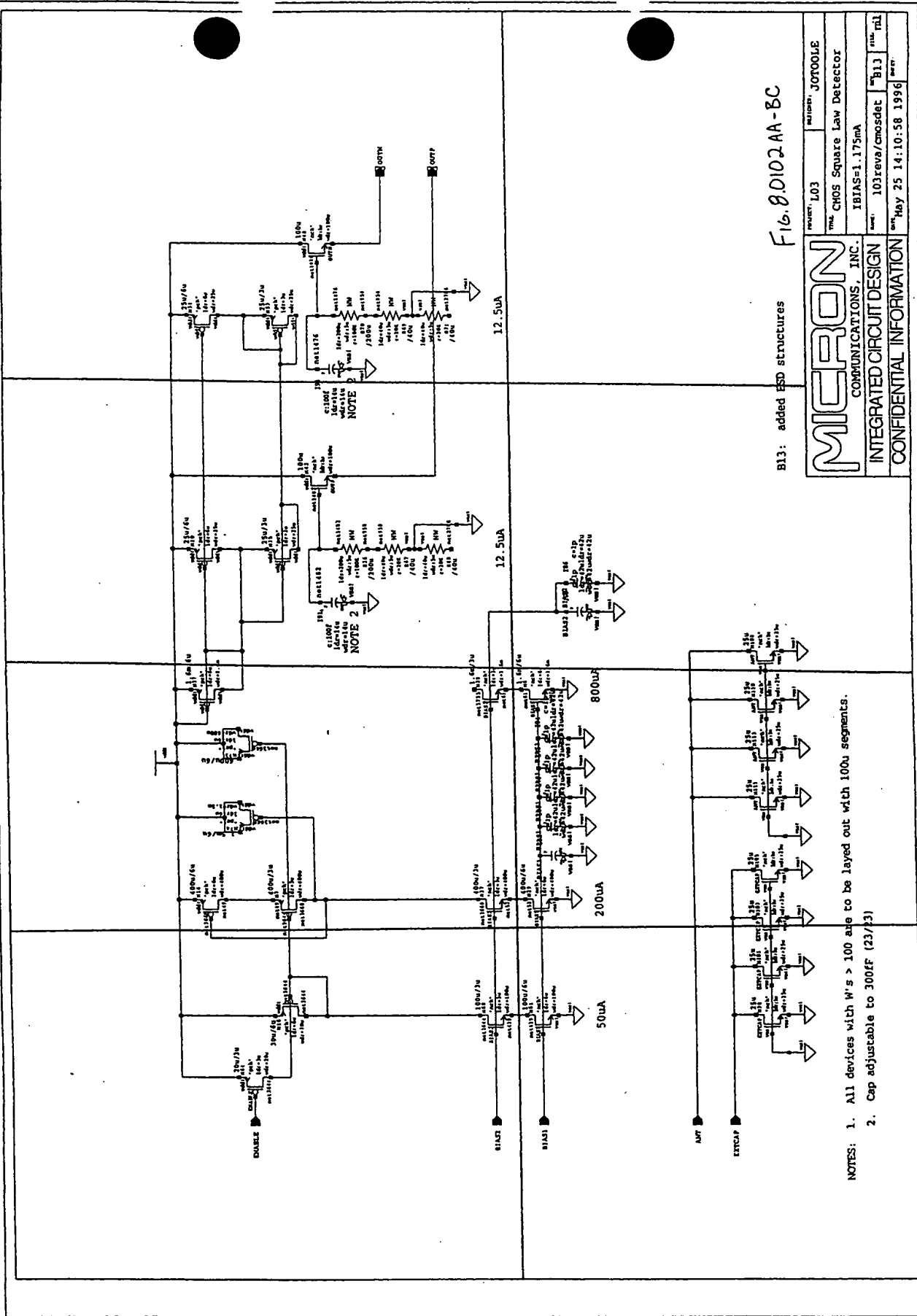
NOTE 1: Array of 12 x 12 contacts with the inner 6 x 6 connected.

FIG. 8.0101AA-C8

|                           |  |                               |         |             |
|---------------------------|--|-------------------------------|---------|-------------|
| MICRON                    |  | PART NO. L03                  |         | REV. 00000E |
| COMMUNICATIONS, INC.      |  | TYPE: Schottky Diode Detector |         |             |
| INTEGRATED CIRCUIT DESIGN |  | IBIAS=79uA                    |         |             |
| CONFIDENTIAL INFORMATION  |  | DATE: 103res/diodelet         | BY: BJJ | REV. 00000E |
|                           |  | DATE: May 24 13:54:28 1996    |         |             |

- B2: connected EXTIOIDE line
- B6: schottky array changed to 6x6
- rf cap reduced to 1pF
- B8: increased Cc to 10pF; decreased Crf to 1pF
- B13: added 1k resistor in series with dummy diode for ESD

|          |          |          |          |
|----------|----------|----------|----------|
| 8.0102AA | 8.0102AB | 8.0102AC | 8.0102AD |
| 8.0102BA | 8.0102BB | 8.0102BC |          |



B13: added ESD structures  
Fig. 8.0102 AA-BC

|  |   |  |
|--|---|--|
| <b>MICRON</b><br>COMMUNICATIONS, INC.<br>INTEGRATED CIRCUIT DESIGN<br>CONFIDENTIAL INFORMATION | PART: L03<br>NAME: CMOS Square Law Detector | REV: 103<br>DATE: May 25 14:10:58 1996 |
|  | IBAS=1.175mA<br>103revs/cmosdet             | B13<br>103                             |
|  | 103revs/cmosdet                             | 103                                    |
|  | 103revs/cmosdet                             | 103                                    |

NOTES: 1. All devices with W's > 100 are to be laid out with 100u segments.  
2. Cap adjustable to 300fF (23/23)

"see" section

|          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|
| 8.0103AA | 8.0103AB | 8.0103AC | 8.0103AD | 8.0103AE | 8.0103AF |
| 8.0103BA | 8.0103BB | 8.0103BC | 8.0103BD | 8.0103BE | 8.0103BF |
| 8.0103CA | 8.0103CB | 8.0103CC | 8.0103CD | 8.0103CE | 8.0103CF |

II II III III III III



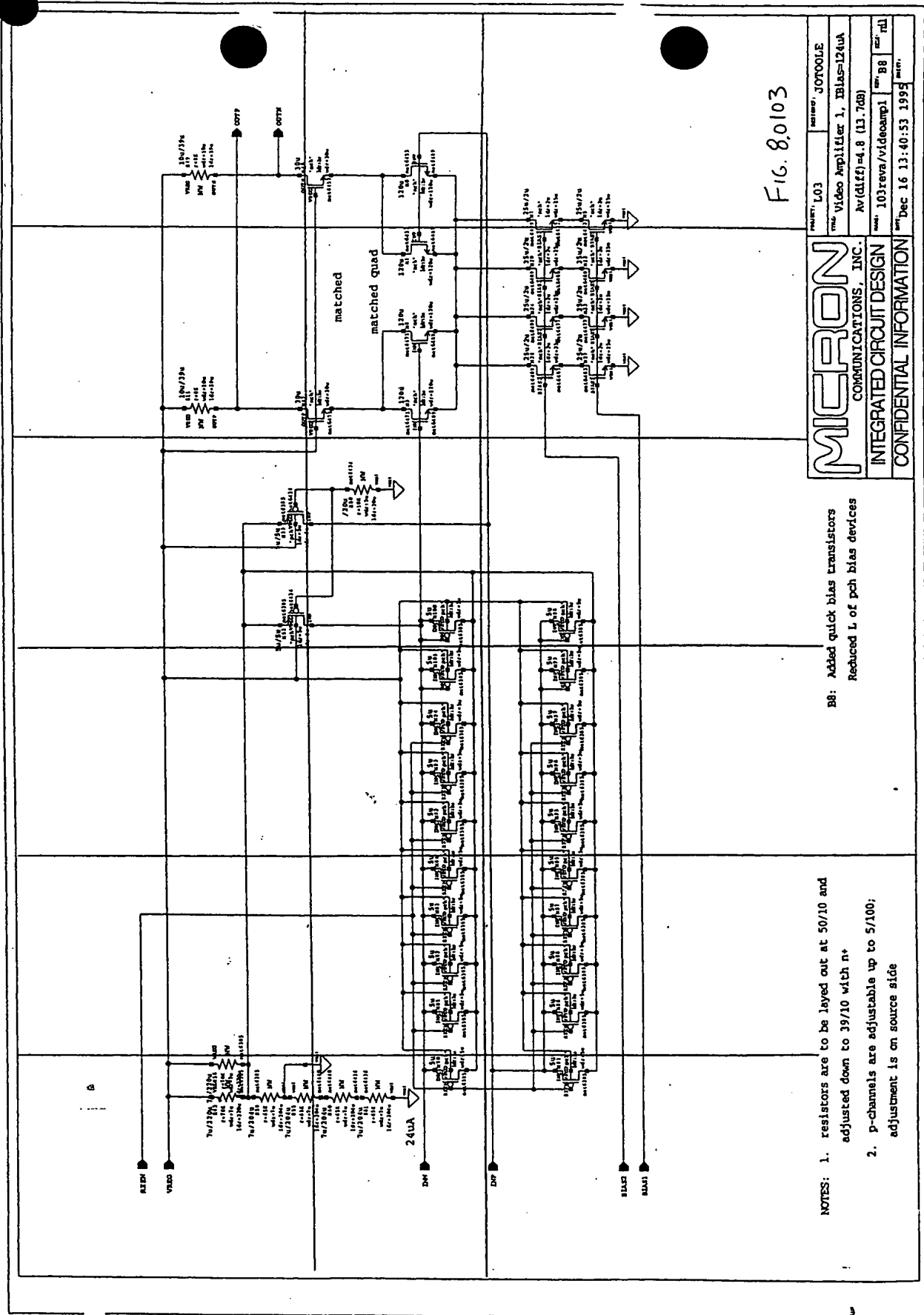


FIG. 8.0103

|                               |            |
|-------------------------------|------------|
| MICRON                        |            |
| COMMUNICATIONS, INC.          |            |
| INTEGRATED CIRCUIT DESIGN     |            |
| CONFIDENTIAL INFORMATION      |            |
| PART NO. L03                  | REV. 10/79 |
| Video Amplifier 1, Bias=124uA |            |
| Av(dB)=4.8 (13.7dB)           |            |
| Rev. B8                       | Rev. 10/79 |
| Dec 16 13:40:53 1998          |            |

- NOTES:
1. resistors are to be layed out at 50/10 and adjusted down to 39/10 with n+
  2. p-channels are adjustable up to 5/100; adjustment is on source side
- B8: Added quick bias transistors  
Reduced L of pch bias devices

8.0104AA 8.0104AB 8.0104AC 8.0104BA 8.0104BB 8.0104BC

|          |          |          |
|----------|----------|----------|
| 8.0104AA | 8.0104AB | 8.0104AC |
| 8.0104BA | 8.0104BB | 8.0104BC |

8.0104

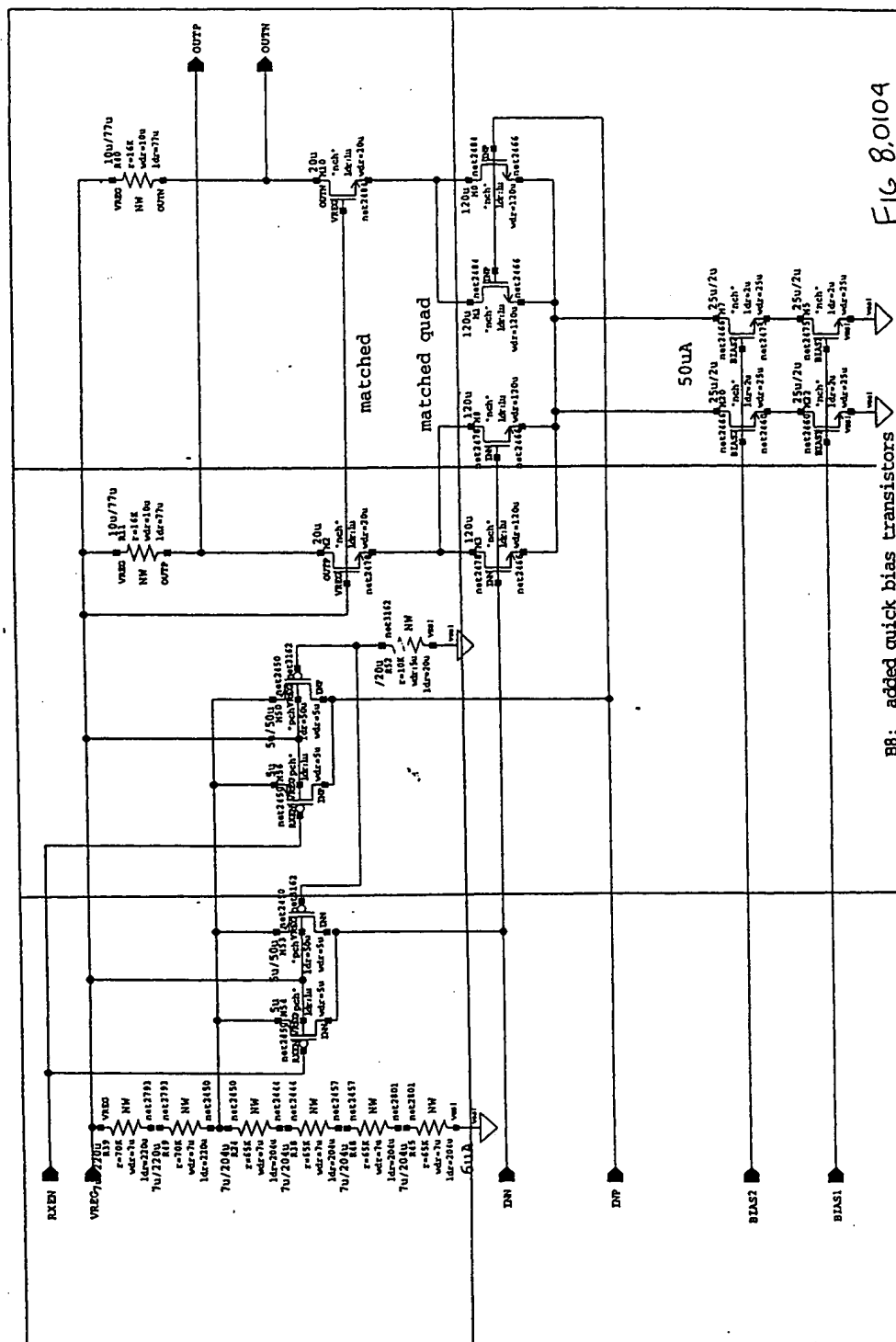


FIG 8.0104

888: added quick bias transistors

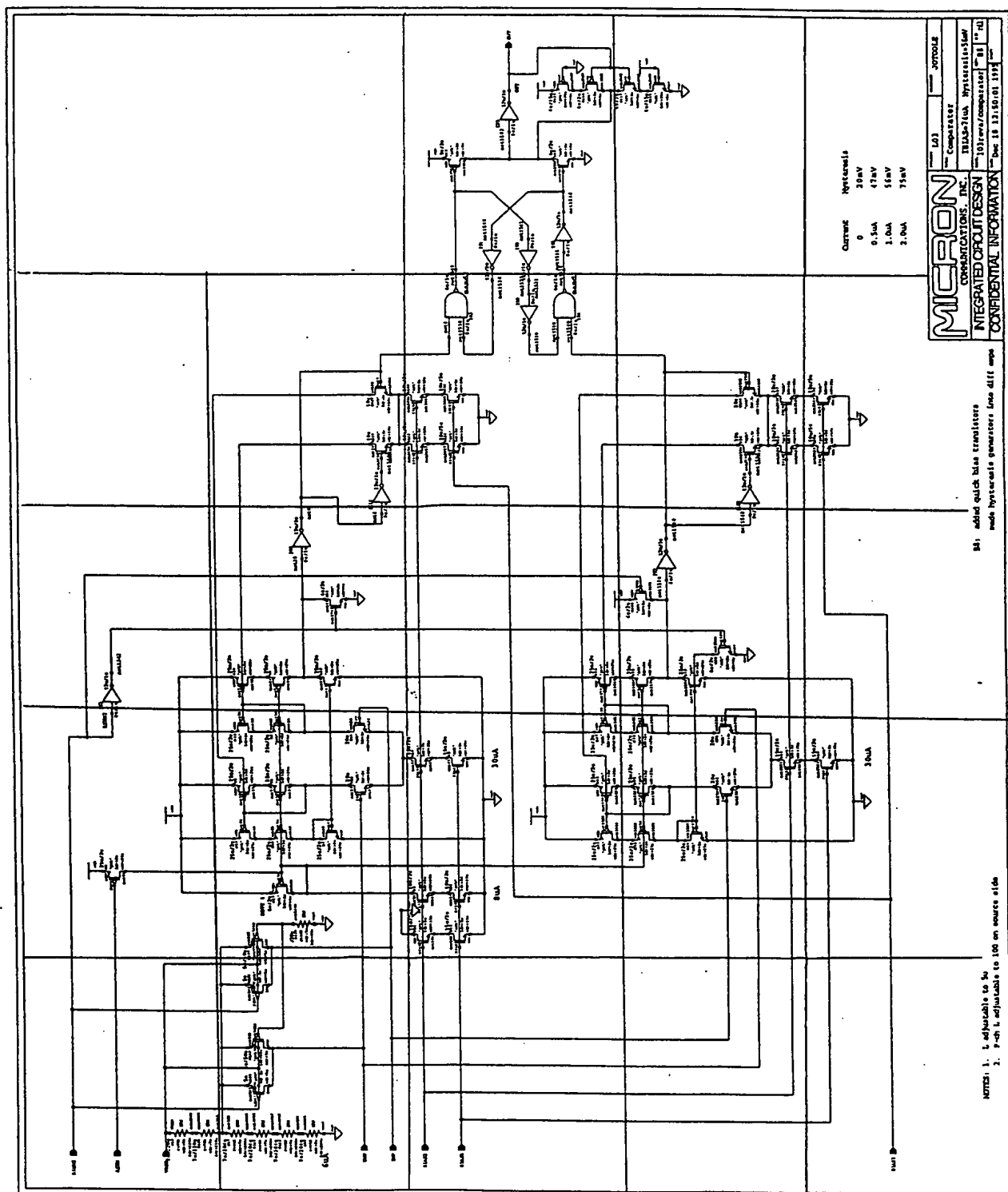
- NOTES:
1. resistors are to be layed out at 100/10 and adjusted down to 77/10 with n+
  2. p-channels are adjustable up to 5/100; adjustment is on the source side.

|                           |  |                                      |                   |
|---------------------------|--|--------------------------------------|-------------------|
| MICRON                    |  | PROJECT: L03                         | REVISION: JOTOOLE |
| COMMUNICATIONS, INC.      |  | TITLE: Video Amplifier 2, IBias=56uA |                   |
| INTEGRATED CIRCUIT DESIGN |  | Av (diff)=5.6 (15dB)                 |                   |
| CONFIDENTIAL INFORMATION  |  | MODE: 103revA/videoamp2              | REV: B8           |
|                           |  | DATE: Dec 16 13:42:25 1995           |                   |

|          |          |          |          |          |
|----------|----------|----------|----------|----------|
| 8.0105AA | 8.0105AB | 8.0105AC | 8.0105AD |          |
| 8.0105BA | 8.0105BB | 8.0105BC | 8.0105BD |          |
| 8.0105CA | 8.0105CB | 8.0105CC | 8.0105CD | 8.0105CE |
| 8.0105DA | 8.0105DB | 8.0105DC | 8.0105DD | 8.0105DE |
| 8.0105EA | 8.0105EB | 8.0105EC | 8.0105ED |          |

50108-1111

Fig. 8.0105



|                           |                        |       |         |
|---------------------------|------------------------|-------|---------|
| <b>MICRON</b>             | _____                  | _____ | JOTCULS |
| COMPUTATIONS, INC.        | _____                  | _____ |         |
| INTEGRATED CIRCUIT DESIGN | Computer               |       |         |
| CONFIDENTIAL INFORMATION  | BIAS-Link Microsystems |       |         |
|                           | 1012rva/comparator     | B1    | HU      |
|                           | DATE 18 JUL 80         | FILE  |         |

made hysterics generators for the  
 1940s; added quick bias transistors

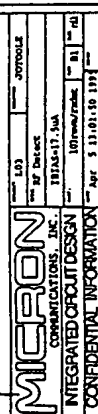
NOTES: 1. L adjustable to 50

FOUO "C3022860"

|          |          |          |          |
|----------|----------|----------|----------|
| 8.0106AA | 8.0106AB | 8.0106AC | 8.0106AD |
| 8.0106BA | 8.0106BB | 8.0106BC | 8.0106BD |
| 8.0106CA | 8.0106CB | 8.0106CC | 8.0106CD |

EX-111115

FIG. 8.0106



И. И. Б. И. И. И.





FOUO E302260

|          |          |          |
|----------|----------|----------|
| 8.0108AA | 8.0108AB | 8.0108AC |
|----------|----------|----------|

EX-11 E302260

FIGURE 8-0108

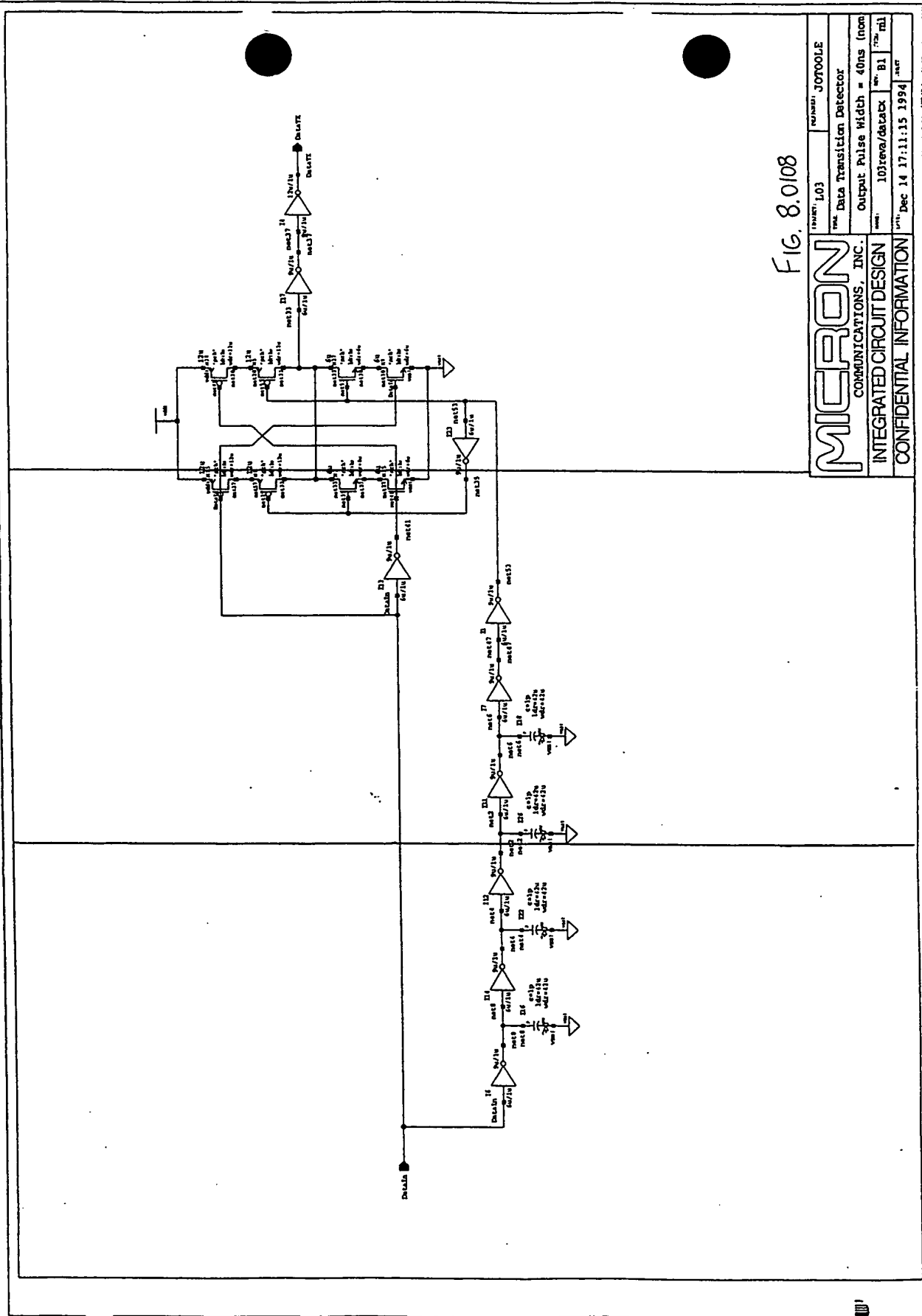


Fig. 8.0108

**MICRON**  
COMMUNICATIONS, INC.

PART 103

DATA TRANSITION DETECTOR

Output Pulse Width = 40ns (non)

103revs/datasheet

Rev. B1

Dec 14 17:11:15 1994

INTEGRATED CIRCUIT DESIGN

CONFIDENTIAL INFORMATION

|        |        |        |        |
|--------|--------|--------|--------|
| 8.02AA | 8.02AB | 8.02AC | 8.02BC |
| 8.02BA | 8.02BB |        |        |

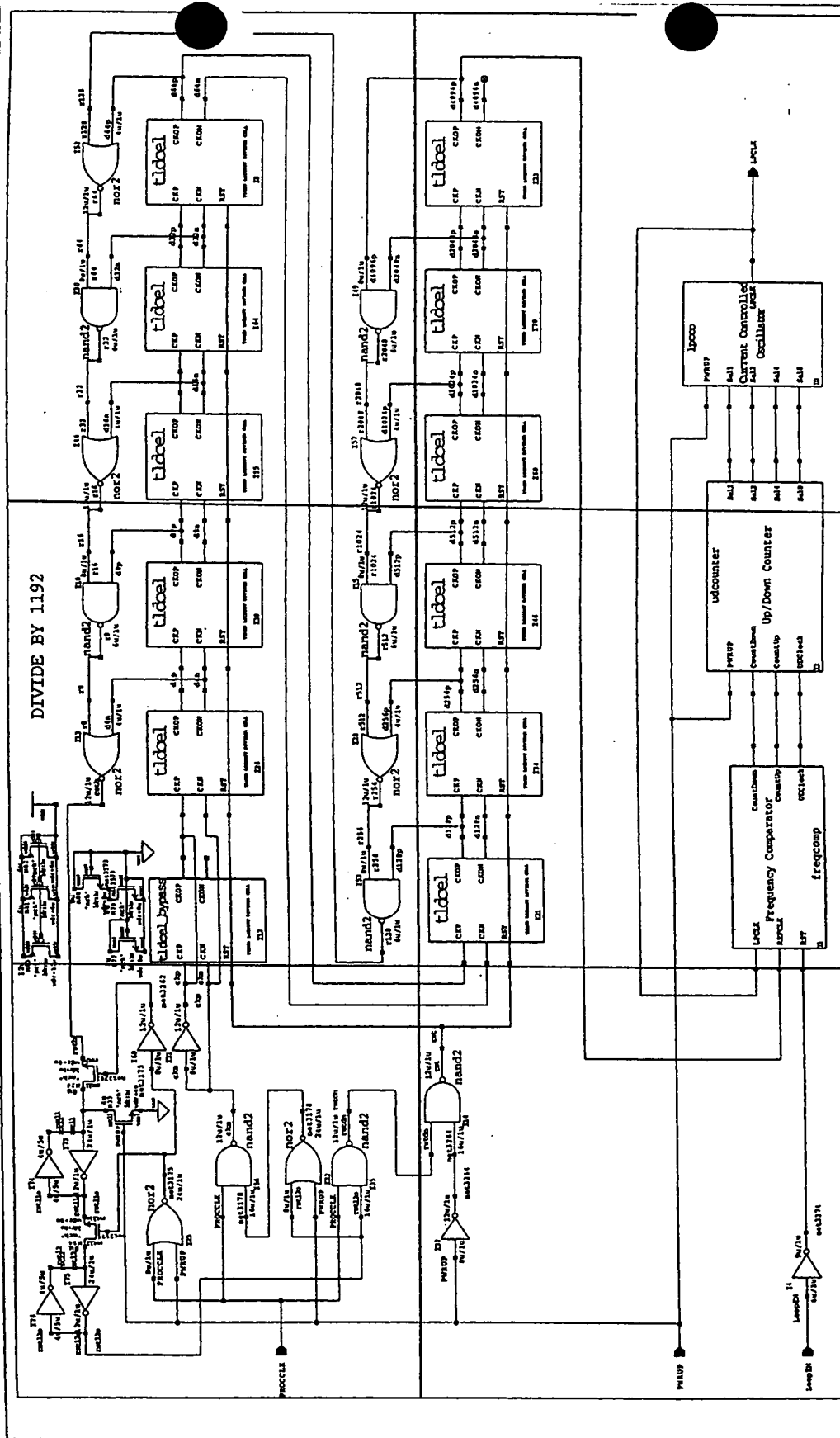


Fig. 8.02

|                           |  |   |                   |
|---------------------------|--|---|-------------------|
| MICRON                    |  | PRODUCT L03   | REVISION J07000LE |
| COMMUNICATIONS, INC.      |  | TM Low Power FLL (1ab=550A typ)                     |                   |
| INTEGRATED CIRCUIT DESIGN |  | f <sub>in</sub> =9.5375MHz/f <sub>out</sub> =8000Hz |                   |
| CONFIDENTIAL INFORMATION  |  | 100res/1p21   | 810               |
|                           |  | REV   | REV               |
|                           |  | DATE  | 26 16:14:18 1996  |

810: first divider stage bypassed

TABLE 8.0201

|          |          |
|----------|----------|
| 8.0201AA | 8.0201AB |
|----------|----------|

8.0201

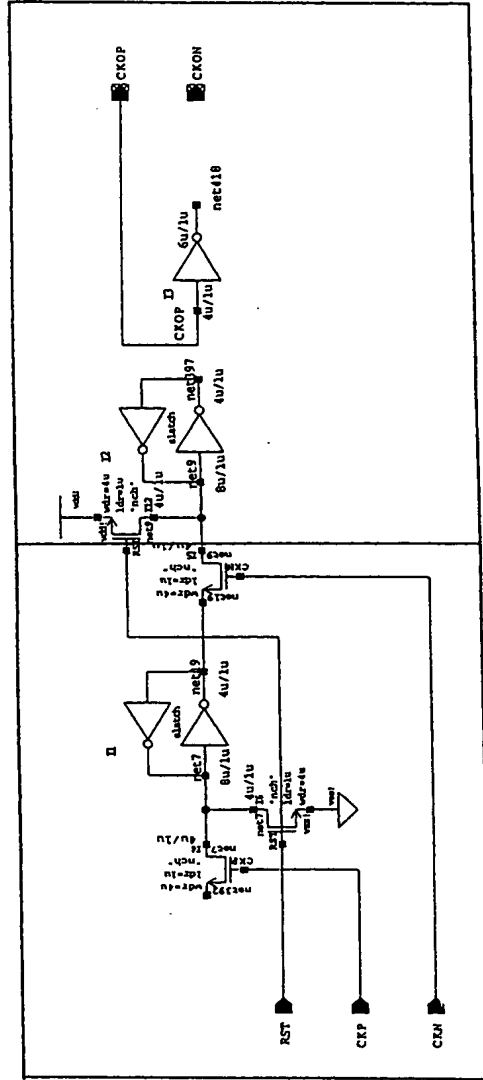


Fig. 8.0201

|                                   |  |                  |  |
|-----------------------------------|--|------------------|--|
| PROJECT: L03                      |  | SECTION: J0700LE |  |
| TITLE: Timed Lockout Divider Cell |  |                  |  |
| V03 reva/tldcel_bypass            |  | B10              |  |
| DATE: Mar 26 13:54:47 1996        |  | A                |  |

**MICRON**  
COMMUNICATIONS, INC.  
INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

B10: new cell to bypass 1st counter stage

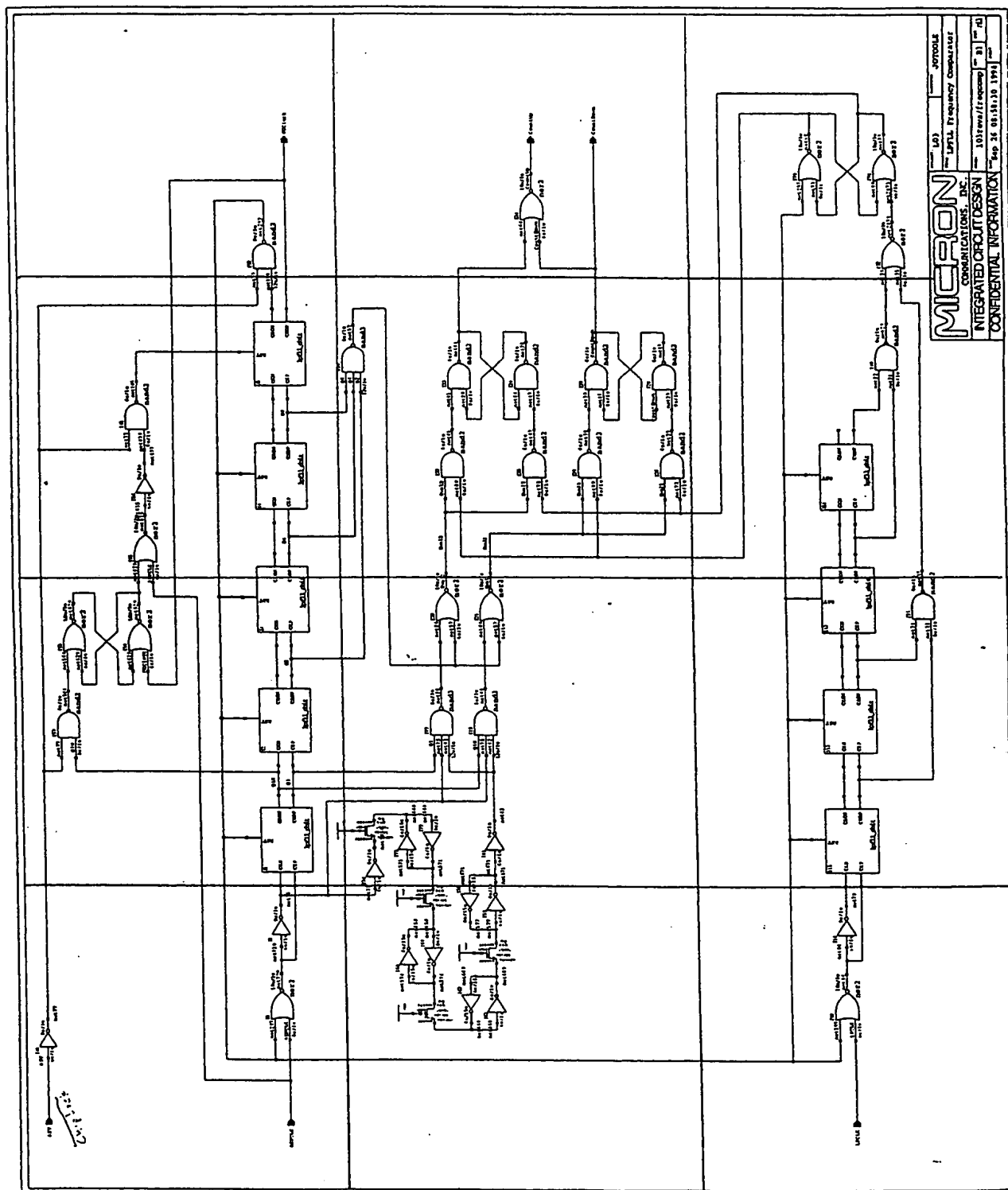
TABLE 2000

|          |          |          |          |
|----------|----------|----------|----------|
| 8.0202AA | 8.0202AB | 8.0202AC | 8.0202AD |
| 8.0202BA | 8.0202BB | 8.0202BC | 8.0202BD |
| 8.0202CA | 8.0202CB | 8.0202CC | 8.0202CD |

TABLE 2000



Fig. 8.0202



|                             |                        |
|-----------------------------|------------------------|
| MICRON COMMUNICATIONS, INC. |                        |
| INTEGRATED CIRCUIT DESIGN   |                        |
| CONFIDENTIAL INFORMATION    |                        |
| DATE                        | SEP 26 08:38:10 1994   |
| TIME                        | 10:15 AM / 1:45 PM     |
| BY                          | AL                     |
| FOR                         | DATA FREQUENCY COMPASS |
| FROM                        | JORDON                 |

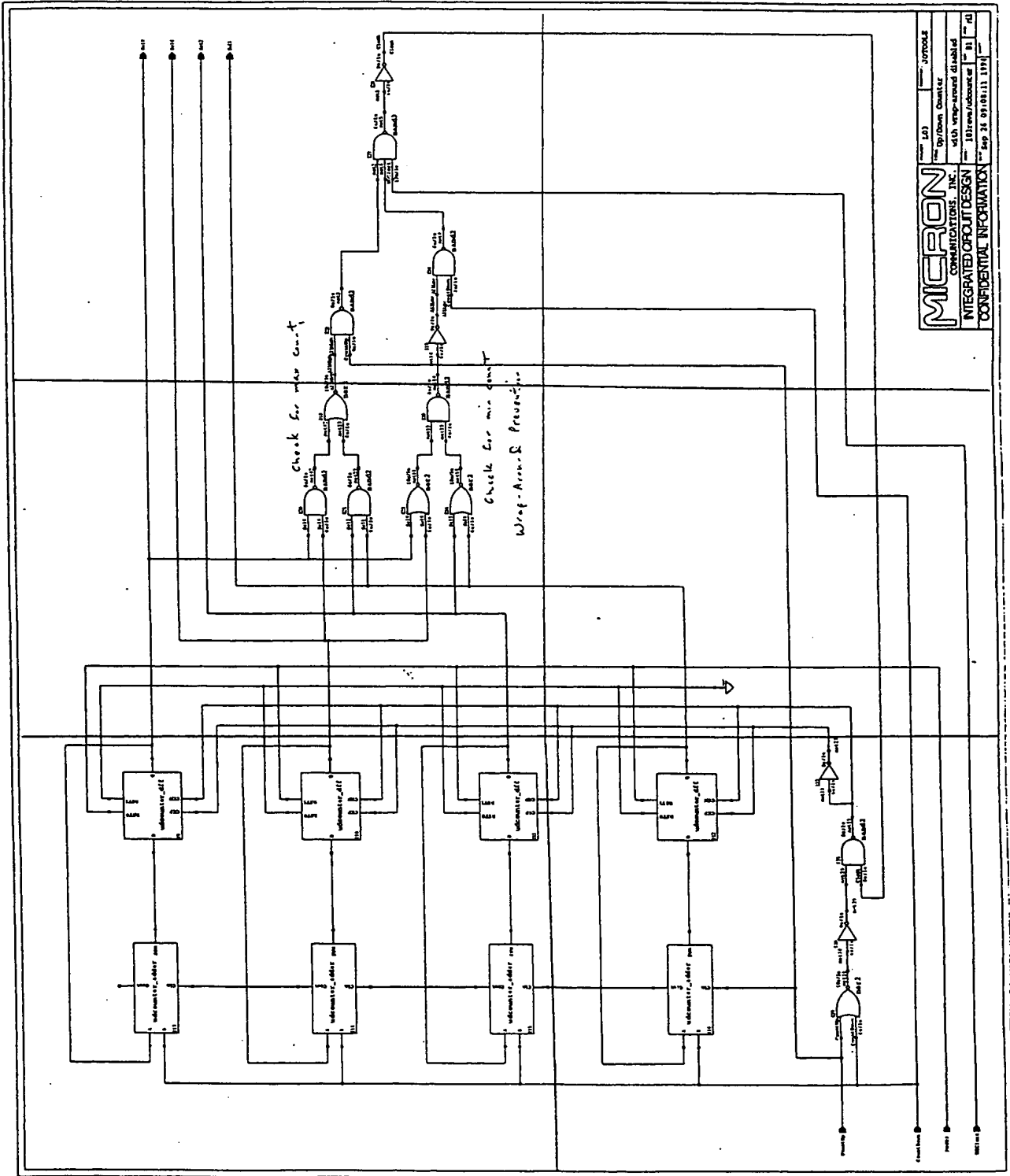
8.0203AA 8.0203AB 8.0203AC

MI40-030

|          |          |          |
|----------|----------|----------|
| 8.0203AA | 8.0203AB | 8.0203AC |
| 8.0203BA | 8.0203BB | 8.0203BC |

8.0203 8.0203

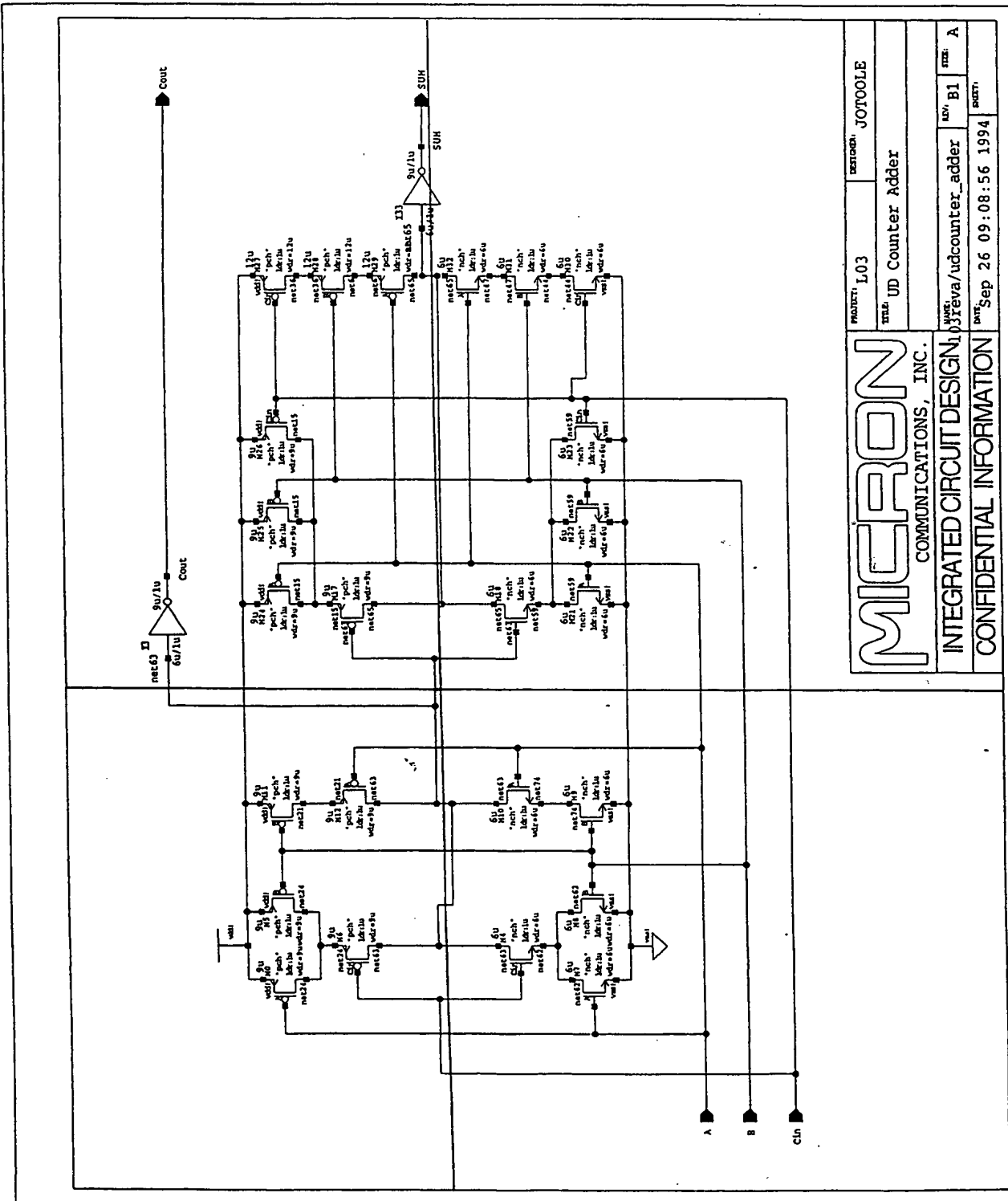
SECRET



|                           |                       |
|---------------------------|-----------------------|
| <b>MICRON</b>             |                       |
| INTEGRATED CIRCUIT DESIGN |                       |
| CONFIDENTIAL INFORMATION  |                       |
| Part No.                  | 103                   |
| Rev.                      | 1.0                   |
| Design                    | Up/Down Counter       |
| Spec.                     | 4150 up/down disabled |
| Drawn                     | 10/20/80              |
| Check                     | 10/20/80              |
| Appr.                     | 10/20/80              |
| Release                   | 10/20/80              |

FIG. 8.0203

|            |            |
|------------|------------|
| 8.020301AA | 8.020301AB |
| 8.020301BA | 8.020301BB |



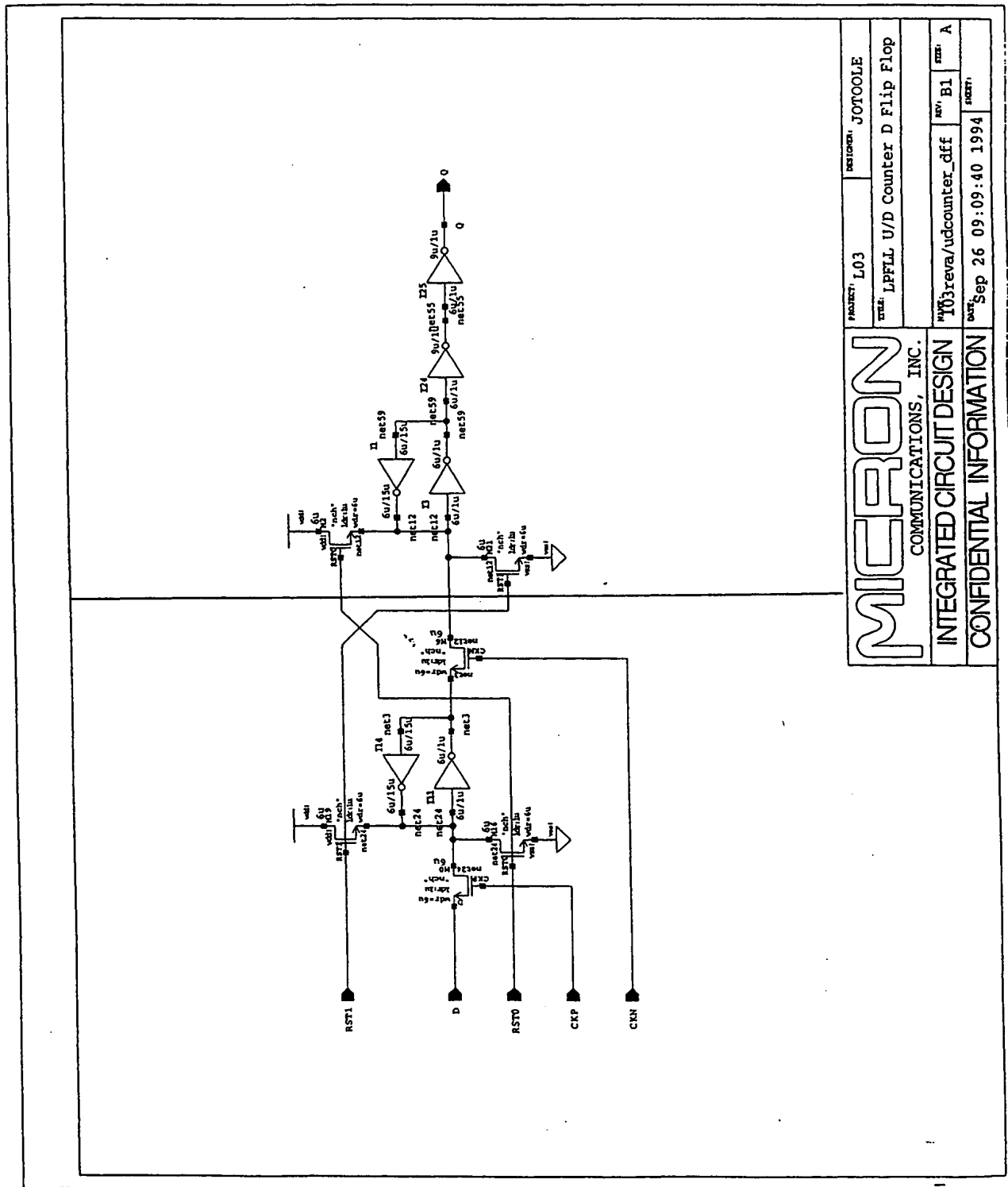
|                           |  |                                  |                    |
|---------------------------|--|----------------------------------|--------------------|
| MICRON                    |  | PROJECT: L03                     | EXTENSION: J0700LE |
| COMMUNICATIONS, INC.      |  | TITLE: UD Counter Adder          |                    |
| INTEGRATED CIRCUIT DESIGN |  | DESIGNER: jfreva/udcounter_adder | REV: B1            |
| CONFIDENTIAL INFORMATION  |  | DATE: Sep 26 09:08:56 1994       | SIZE: A            |

Fig. 8.020301

8.020302AA

2016.02.08 6.11.1

Figure 8.020302



**MICRON**  
COMMUNICATIONS, INC.

INTEGRATED CIRCUIT DESIGN

CONFIDENTIAL INFORMATION

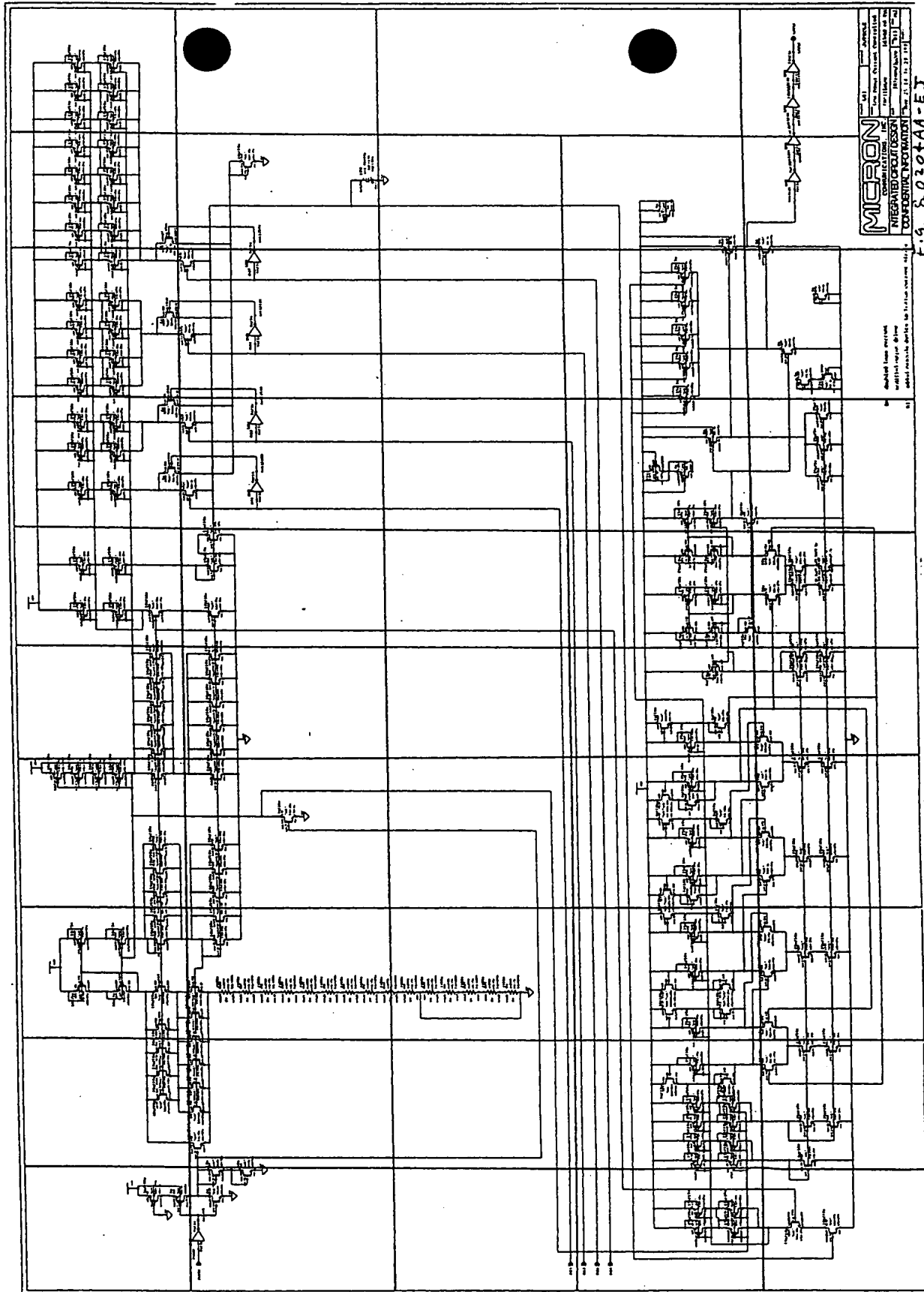
|                                     |                   |
|-------------------------------------|-------------------|
| PROJECT: L03                        | DESIGNER: JOTOOLE |
| TITLE: LPFL U/D Counter D Flip Flop |                   |
| FILE: 103revra/udcounter_diff       | REV: B1           |
| DATE: Sep 26 09:09:40 1994          | SIZE: A           |

Fig. 8.020302

[illegible]



FOUO 29022800



F-9. 2030+AA-EJ



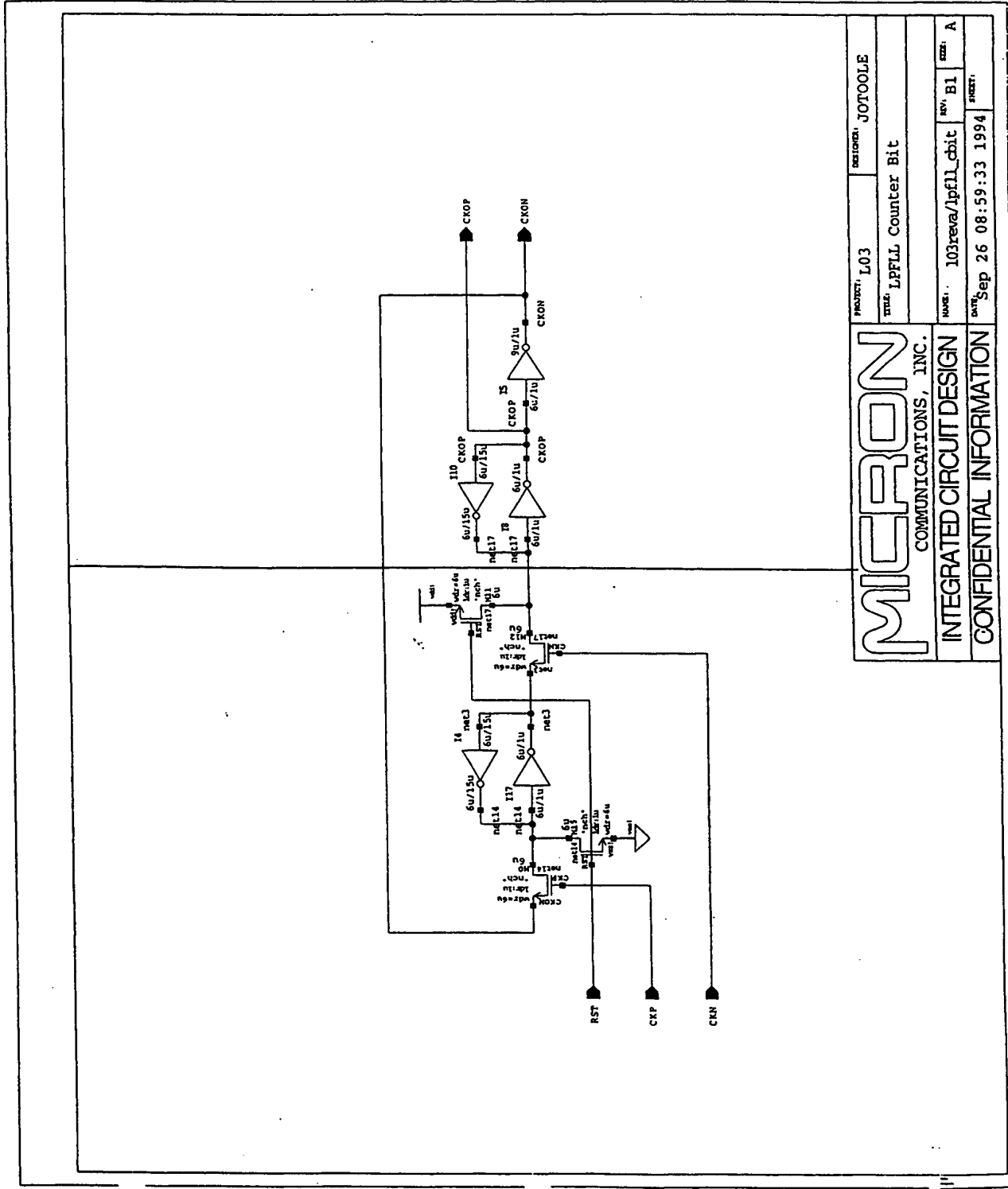
FOUO" E9022800

|        |        |
|--------|--------|
| 8.03AA | 8.03AB |
|--------|--------|

LE II 88.003

FIG. 8.03

FIG. 8.03



|                            |  |                   |         |
|----------------------------|--|-------------------|---------|
| PROJECT: L03               |  | DESIGNED: JOTOOLE |         |
| TITLE: LpFL Counter Bit    |  |                   |         |
| NAME: 103reva/lpfl_chit    |  | REV: B1           | SIZE: A |
| DATE: Sep 26 08:59:33 1994 |  | SHEET:            |         |

|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
| 8.04AA | 8.04AB | 8.04AC | 8.04AD | 8.04AE | 8.04AF |
| 8.04BA | 8.04BB | 8.04BC | 8.04BD | 8.04BE | 8.04BF |
| 8.04CA | 8.04CB | 8.04CC | 8.04CD | 8.04CE | 8.04CF |
| 8.04DA | 8.04DB | 8.04DC | 8.04DD | 8.04DE |        |
| 8.04EA | 8.04EB | 8.04EC | 8.04ED | 8.04EE |        |

LEAD BB.0000

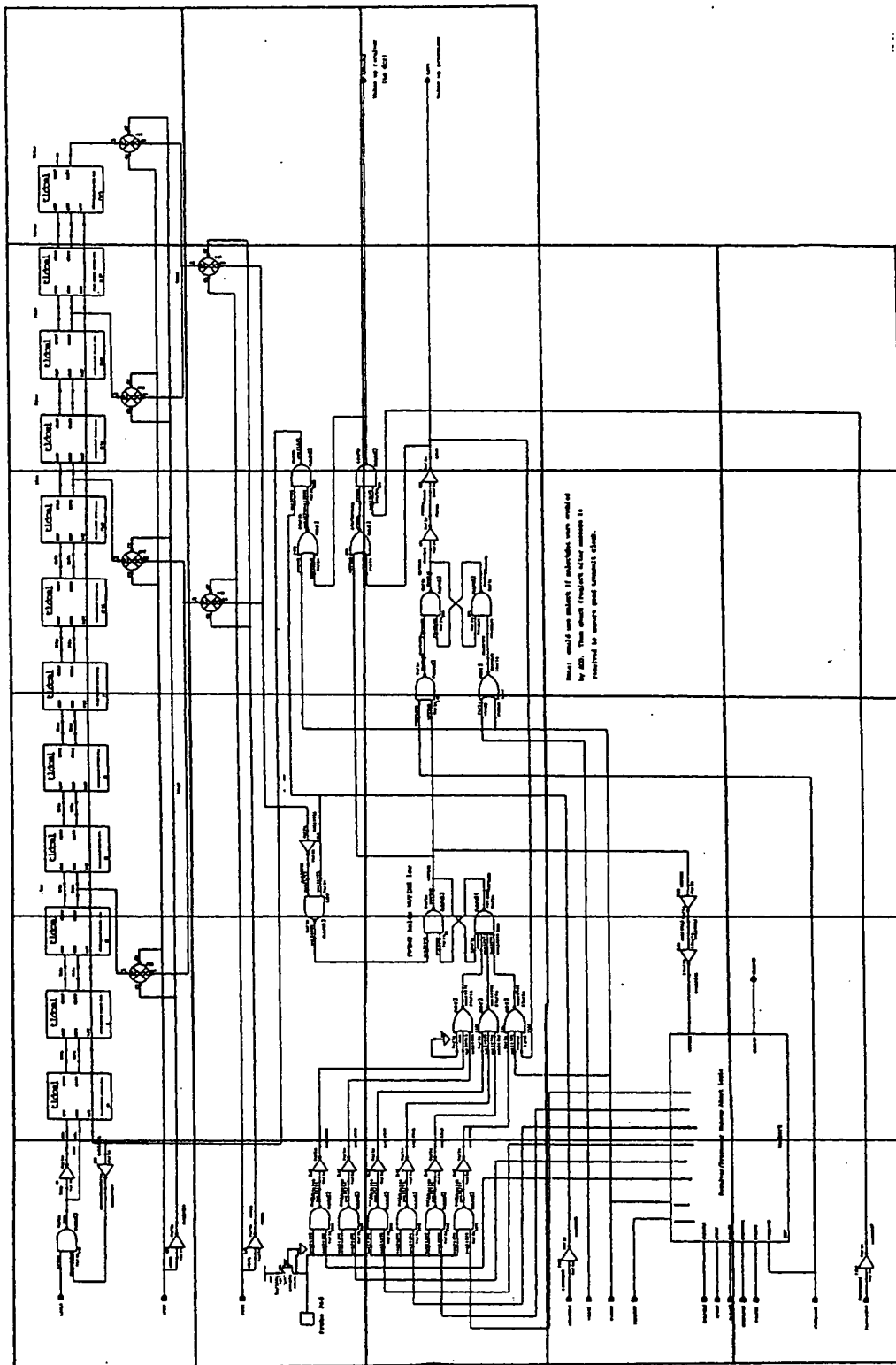
[illegible]

Fig. 8.04

[illegible]

|          |          |          |          |          |
|----------|----------|----------|----------|----------|
| 8.0401AA | 8.0401AB | 8.0401AC | 8.0401AD | 8.0401AE |
| 8.0401BA | 8.0401BB | 8.0401BC | 8.0401BD | 8.0401BE |
| 8.0401CA | 8.0401CB | 8.0401CC | 8.0401CD | 8.0401CE |
| 8.0401DA | 8.0401DB | 8.0401DC | 8.0401DD | 8.0401DE |

EX-11





73660" 692280

|            |            |
|------------|------------|
| 8.040101AA | 8.040101AB |
|------------|------------|

II II II II II II II II



8.0402AB

8.0402AA

FILED 8.0402



|        |        |        |        |        |
|--------|--------|--------|--------|--------|
| 8.05AA | 8.05AB | 8.05AC | 8.05AD | 8.05AE |
| 8.05BA | 8.05BB | 8.05BC | 8.05BD | 8.05BE |
| 8.05CA | 8.05CB | 8.05CC | 8.05CD | 8.05CE |
| 8.05DA | 8.05DB | 8.05DC | 8.05DD | 8.05DE |



|          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|
| 8.0501AA | 8.0501AB | 8.0501AC | 8.0501AD | 8.0501AE | 8.0501BE |
| 8.0501BA | 8.0501BB | 8.0501BC | 8.0501BD |          |          |





FORM 302B-00

MI40-030

8.050101AB

8.050101AA

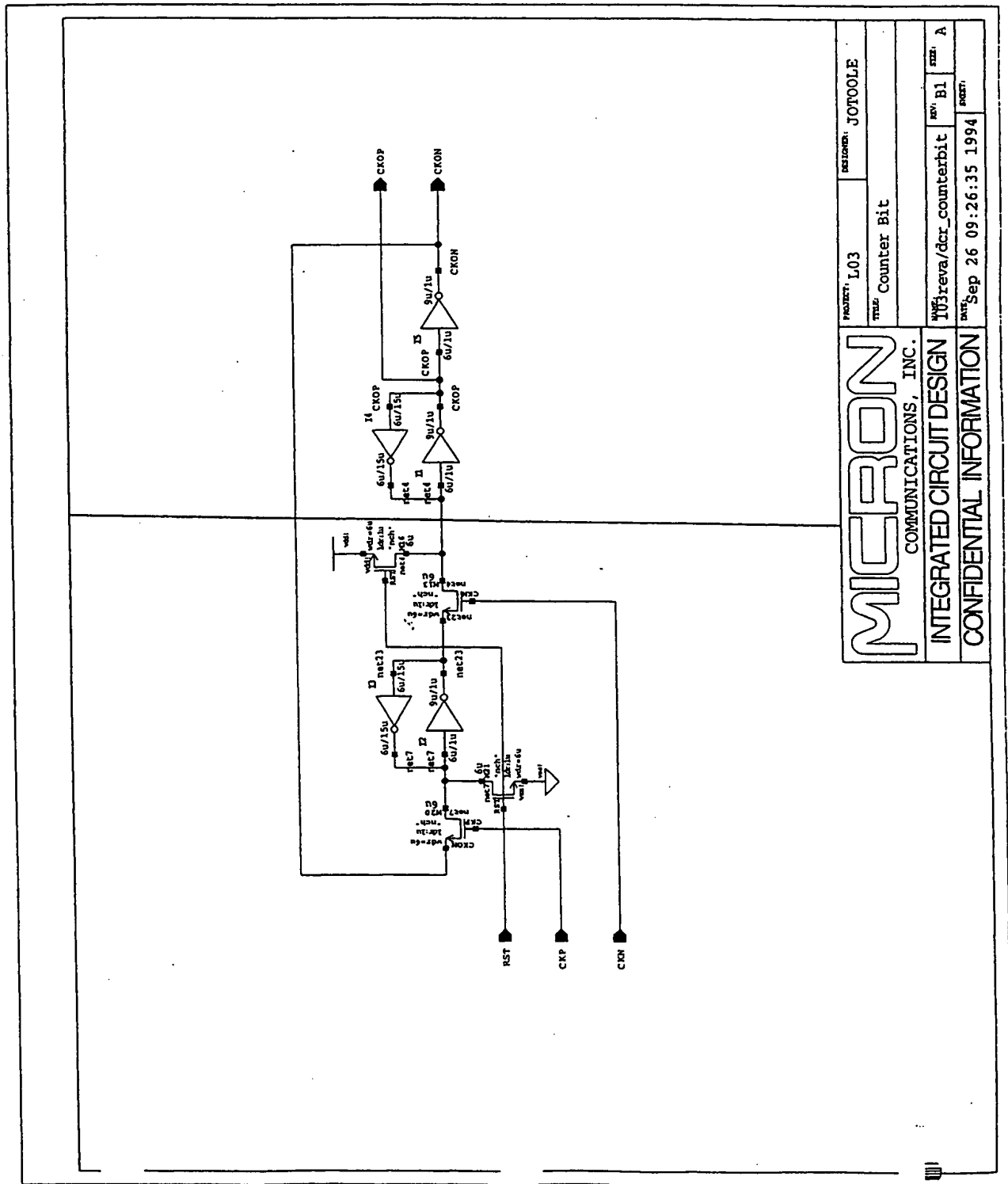
IL 11 11 11 11 11 11



8.050102AA

2015.8.8

FIG. 8.050102



|                           |  |                            |                   |
|---------------------------|--|----------------------------|-------------------|
| MICRON                    |  | PROJECT: L03               | DESIGNER: JOTOOLE |
| COMMUNICATIONS, INC.      |  | TITLE: Counter Bit         |                   |
| INTEGRATED CIRCUIT DESIGN |  | REV: B1                    | SIZE: A           |
| CONFIDENTIAL INFORMATION  |  | DATE: Sep 26 09:26:35 1994 | REV: A            |

FIG. 8.050102

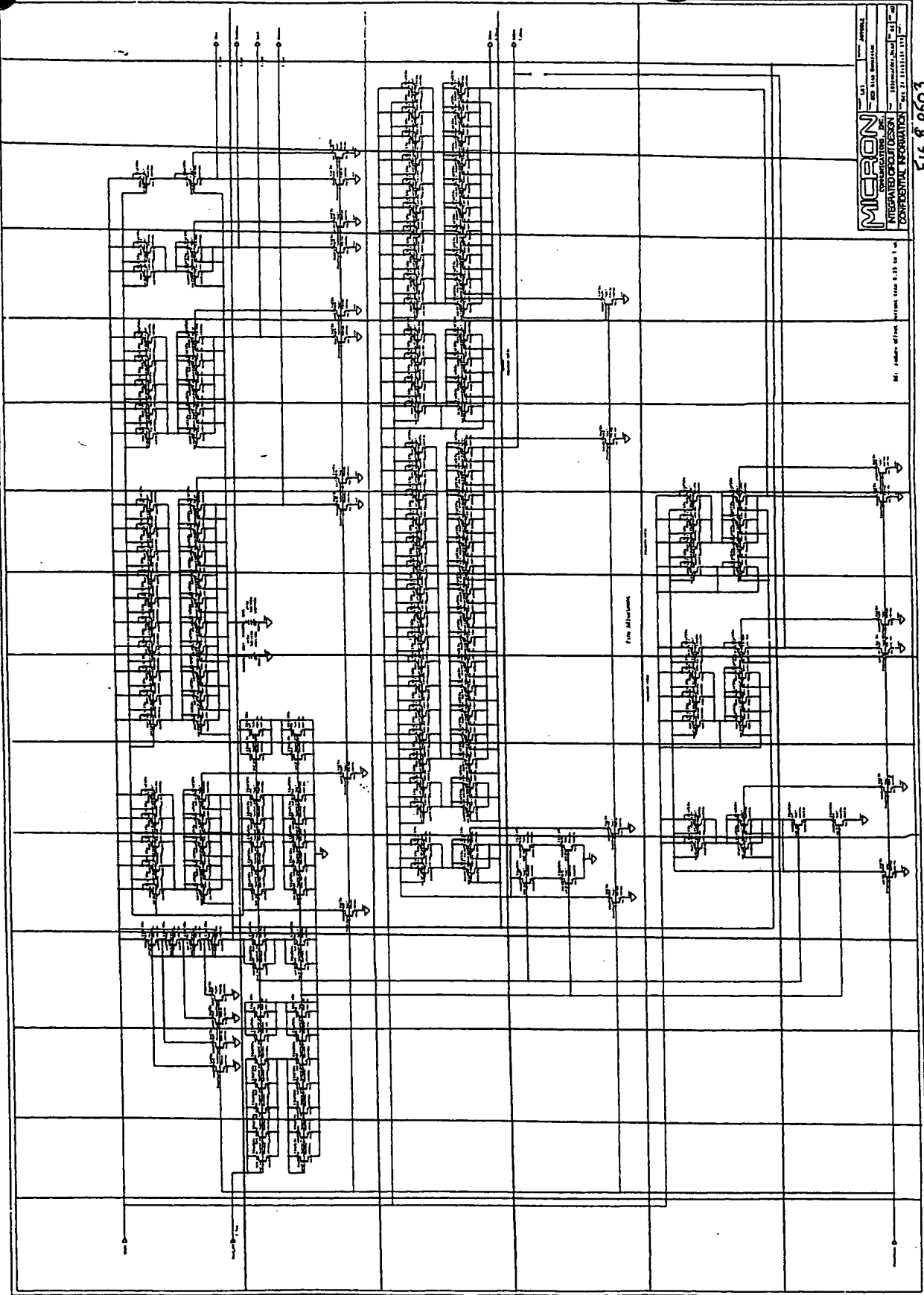
|          |          |          |          |
|----------|----------|----------|----------|
| 8.0502AA | 8.0502AB | 8.0502AC | 8.0502AD |
| 8.0502BA | 8.0502BB | 8.0502BC | 8.0502BD |
| 8.0502CA | 8.0502CB | 8.0502CC | 8.0502CD |



MI40-030 "E" Series

|          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8.05034A | 8.05034B | 8.05034C | 8.05034D | 8.05034E | 8.05034F | 8.05034G | 8.05034H | 8.05034I | 8.05034J | 8.05034K | 8.05034L | 8.05034M | 8.05034N | 8.05034O |
| 8.05038A | 8.05038B | 8.05038C | 8.05038D | 8.05038E | 8.05038F | 8.05038G | 8.05038H | 8.05038I | 8.05038J | 8.05038K | 8.05038L | 8.05038M | 8.05038N | 8.05038O |
| 8.05032A | 8.05032B | 8.05032C | 8.05032D | 8.05032E | 8.05032F | 8.05032G | 8.05032H | 8.05032I | 8.05032J | 8.05032K | 8.05032L | 8.05032M | 8.05032N | 8.05032O |
| 8.05030A | 8.05030B | 8.05030C | 8.05030D | 8.05030E | 8.05030F | 8.05030G | 8.05030H | 8.05030I | 8.05030J | 8.05030K | 8.05030L | 8.05030M | 8.05030N | 8.05030O |
| 8.05036A | 8.05036B | 8.05036C | 8.05036D | 8.05036E | 8.05036F | 8.05036G | 8.05036H | 8.05036I | 8.05036J | 8.05036K | 8.05036L | 8.05036M | 8.05036N |          |
| 8.05035A | 8.05035B | 8.05035C | 8.05035D | 8.05035E | 8.05035F | 8.05035G | 8.05035H | 8.05035I | 8.05035J | 8.05035K | 8.05035L | 8.05035M | 8.05035N |          |

MI40-030 "E" Series



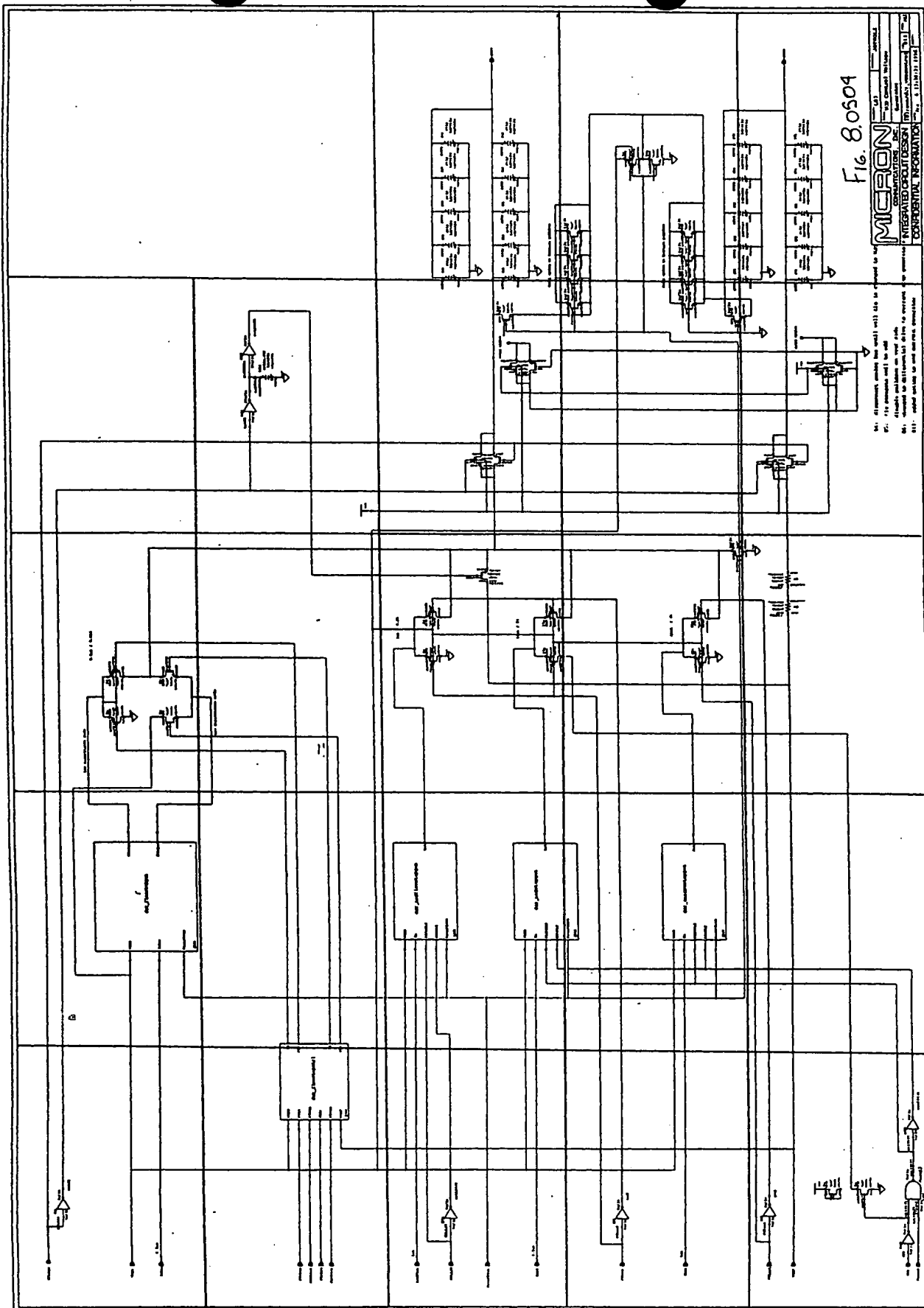


"0000" "00000000"

|          |          |          |          |          |
|----------|----------|----------|----------|----------|
| 8.0504AA | 8.0504AB | 8.0504AC | 8.0504AD |          |
| 8.0504BA | 8.0504BB | 8.0504BC | 8.0504BD |          |
| 8.0506CA | 8.0504CB | 8.0504CC | 8.0504CD | 8.0504CE |
| 8.0504DA | 8.0504DB | 8.0504DC | 8.0504DD | 8.0504DE |
| 8.0504EA | 8.0504EB | 8.0504EC | 8.0504ED | 8.0504EE |

BB.0504

CODED IN 00000000



|            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 8.050401AA | 8.050401AB | 8.050401AC | 8.050401AD | 8.050401AE | 8.050401AF | 8.050401AG | 8.050401AH | 8.050401AJ | 8.050401AJ |
| 8.050401BA | 8.050401BB | 8.050401BC | 8.050401BD | 8.050401BE | 8.050401BF | 8.050401BG | 8.050401BH | 8.050401BI | 8.050401BJ |
| 8.050401CA | 8.050401CB | 8.050401CC | 8.050401CD | 8.050401CE | 8.050401CF | 8.050401CG | 8.050401CH | 8.050401CI | 8.050401CJ |
|            |            |            |            |            |            |            |            |            | 8.050401CK |

8.050401

|  |  |                                     |
|--|--|-------------------------------------|
| MICRON COMMUNICATIONS, INC.<br>INTEGRATED CIRCUIT DESIGN | NAME<br><b>COOPER, ROBERT E</b>                | DATE<br><b>SEP 26 09:28:43 1984</b> |
| CONFIDENTIAL INFORMATION                                 | COURSE CODE<br><b>13</b>                       | PAGE NO.<br><b>10</b>               |
|  | COURSE TITLE<br><b>CONCRETE STEP CONVERTER</b> |                                     |
|  | PROJECT NO.<br><b>107</b>                      | JOB NO.<br><b>30700LE</b>           |



FIG. 8.050402

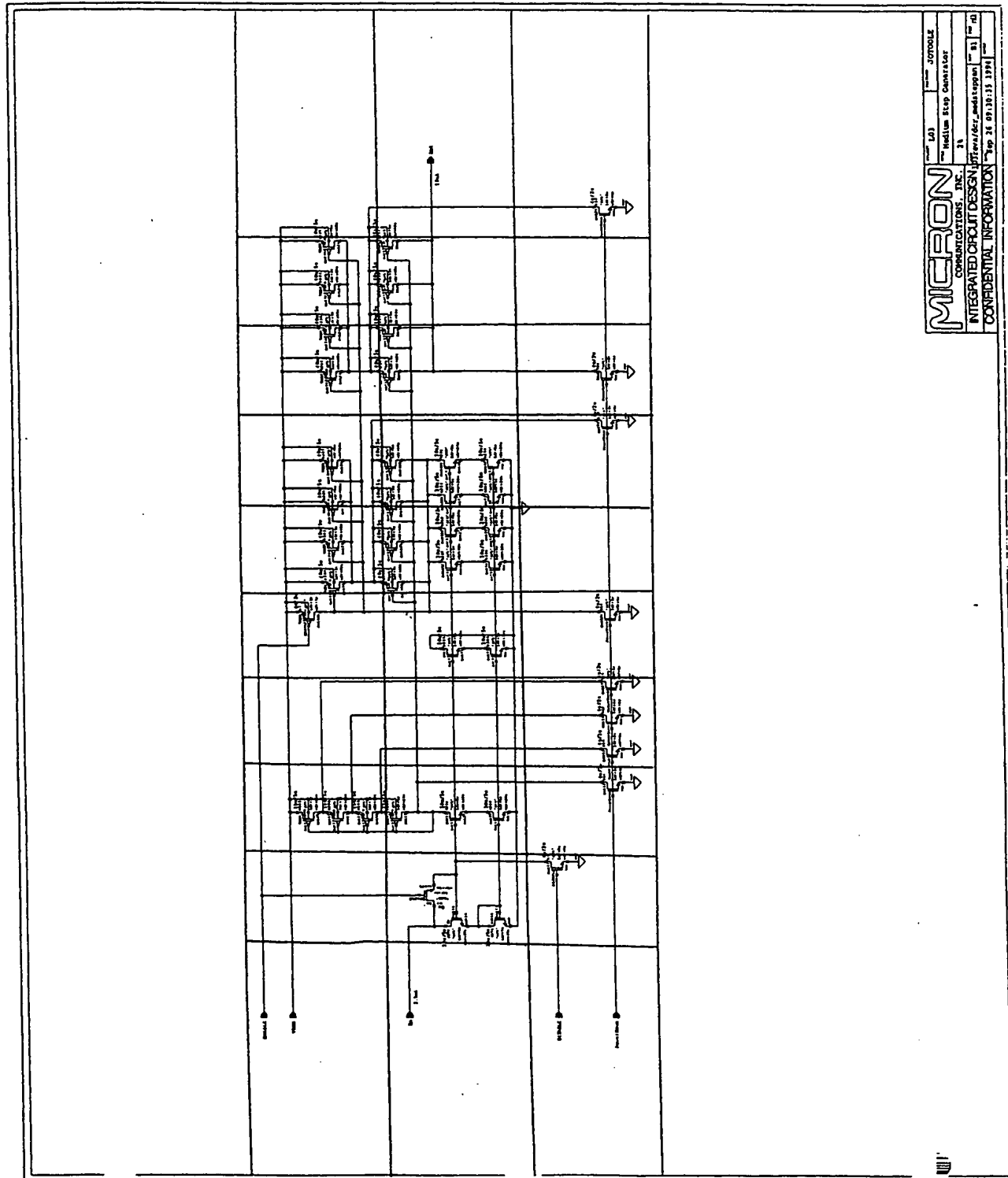


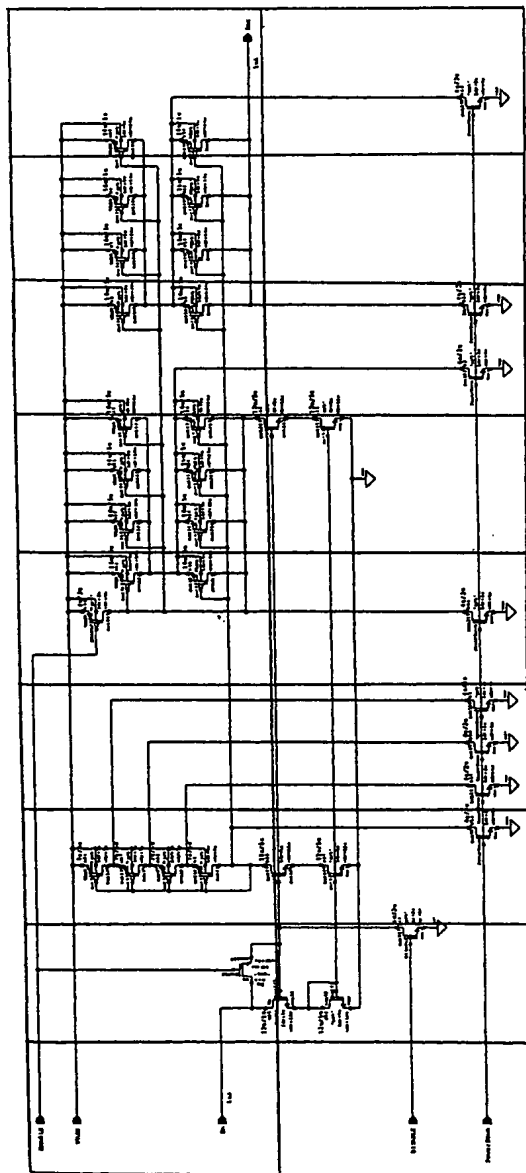
FIG. 8.050402

8.050403AA 8.050403AB 8.050403AC 8.050403AD 8.050403AE 8.050403AF 8.050403AG 8.050403AH 8.050403AI

|            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 8.050403AA | 8.050403AB | 8.050403AC | 8.050403AD | 8.050403AE | 8.050403AF | 8.050403AG | 8.050403AH | 8.050403AI |
| 8.050403BA | 8.050403BB | 8.050403BC | 8.050403BD | 8.050403BE | 8.050403BF | 8.050403BG | 8.050403BH | 8.050403BI |

8.050403CJ 8.050403CK 8.050403CL 8.050403CM 8.050403CN 8.050403CO 8.050403CP 8.050403CQ 8.050403CR

Fig. 8.050403



|                                   |                            |                         |
|-----------------------------------|----------------------------|-------------------------|
| <b>MICRON</b>                     | FORM NO. 103               | JURISDICTION            |
| <b>COMMUNICATIONS, INC.</b>       | Medium Time Step Generator |                         |
|                                   | 0-21                       |                         |
| <b>INTEGRATED CIRCUIT DESIGN,</b> | 7871 Dorland Street        | San Jose, CA 95133-1810 |
| <b>CONFIDENTIAL INFORMATION</b>   |                            |                         |



code" e30e2800

|                   |                   |
|-------------------|-------------------|
| <p>8.050404AA</p> | <p>8.050404AB</p> |
| <p>8.050404BA</p> | <p>8.050404BB</p> |

II II 88.05040400

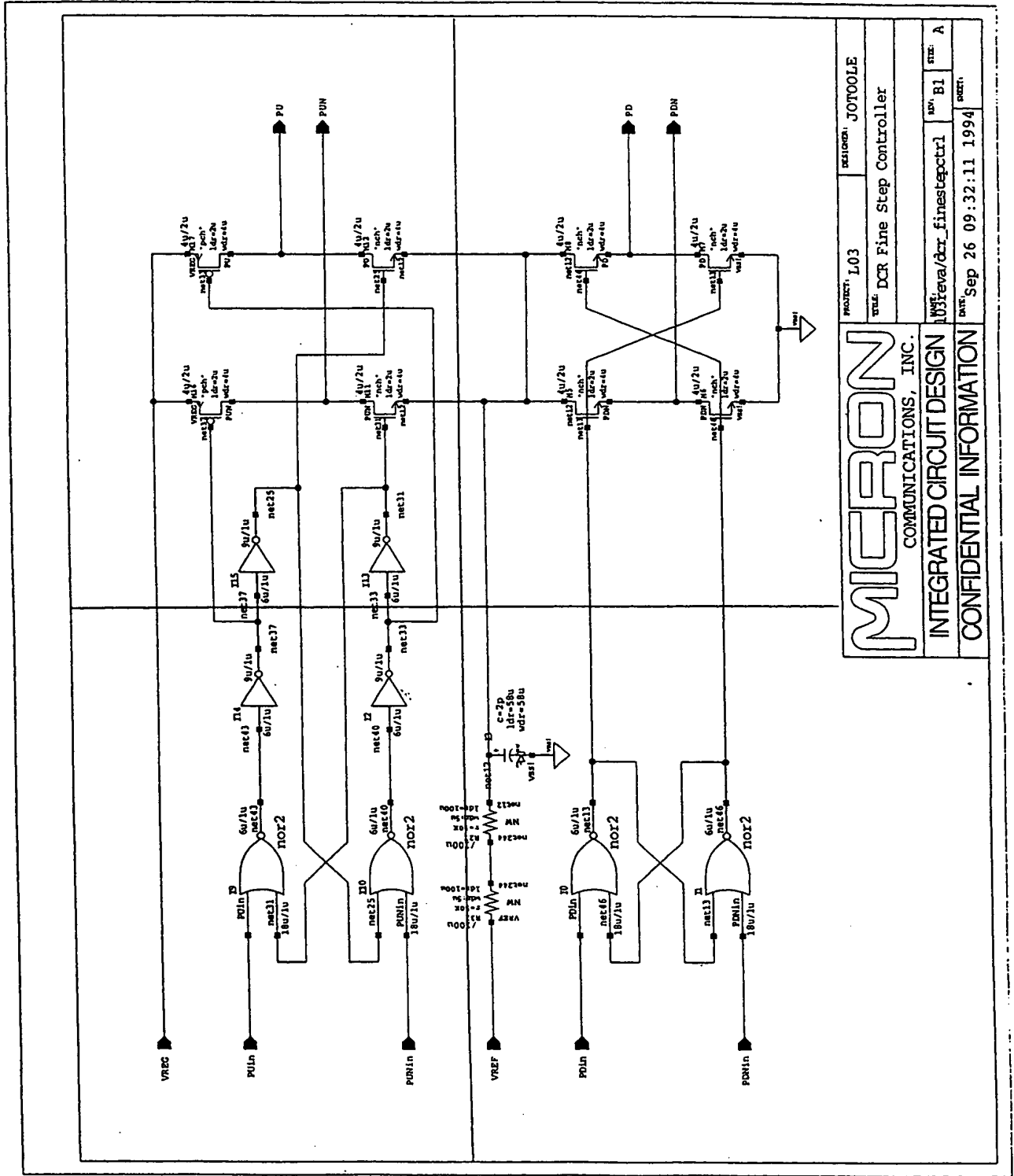


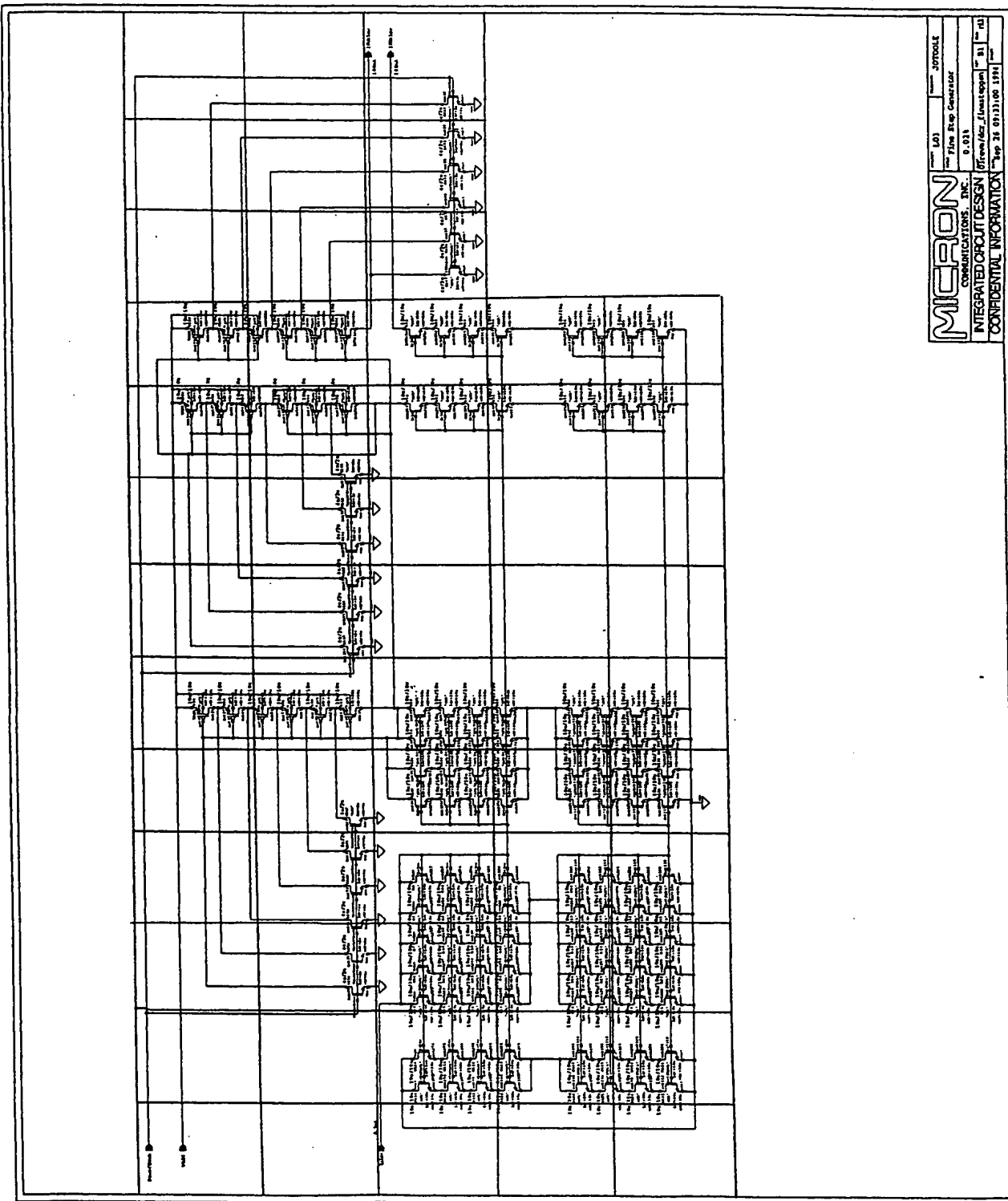
Fig. 8.050409

8.0504054A 8.0504054B 8.0504054C 8.0504054D 8.0504054E 8.0504054F 8.0504054G 8.0504054H 8.0504054I 8.0504054J 8.0504054K 8.0504054L 8.0504054M

|            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 8.0504054A | 8.0504054B | 8.0504054C | 8.0504054D | 8.0504054E | 8.0504054F | 8.0504054G | 8.0504054H | 8.0504054I | 8.0504054J | 8.0504054K | 8.0504054L | 8.0504054M |
| 8.0504056A | 8.0504056B | 8.0504056C | 8.0504056D | 8.0504056E | 8.0504056F | 8.0504056G | 8.0504056H | 8.0504056I | 8.0504056J | 8.0504056K | 8.0504056L | 8.0504056M |
| 8.0504058A | 8.0504058B | 8.0504058C | 8.0504058D | 8.0504058E | 8.0504058F | 8.0504058G | 8.0504058H | 8.0504058I | 8.0504058J | 8.0504058K | 8.0504058L | 8.0504058M |
| 8.0504050A | 8.0504050B | 8.0504050C | 8.0504050D | 8.0504050E | 8.0504050F | 8.0504050G | 8.0504050H | 8.0504050I | 8.0504050J |            |            |            |
| 8.0504052A | 8.0504052B | 8.0504052C | 8.0504052D | 8.0504052E | 8.0504052F | 8.0504052G | 8.0504052H | 8.0504052I | 8.0504052J |            |            |            |

8.0504052A 8.0504052B 8.0504052C 8.0504052D 8.0504052E 8.0504052F 8.0504052G 8.0504052H 8.0504052I 8.0504052J

TOP SECRET



|                           |  |                      |                |
|---------------------------|--|----------------------|----------------|
| MICRON                    |  | LO3                  | JOTTOLE        |
| COMPUTATIONS, INC.        |  | File: Rwp Generation |                |
| INTEGRATED CIRCUIT DESIGN |  | 0.023                |                |
| CONFIDENTIAL INFORMATION  |  | Urem/Bez./Inst/egm   | 01 01 02       |
|                           |  | Page 26              | 01/11/00 11:14 |

|          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8.05054A | 8.05054B | 8.05054C | 8.05054D | 8.05054E | 8.05054F | 8.05054G | 8.05054H | 8.05054I | 8.05054J | 8.05054K | 8.05054L | 8.05054M | 8.05054N |
| 8.05055A | 8.05055B | 8.05055C | 8.05055D | 8.05055E | 8.05055F | 8.05055G | 8.05055H | 8.05055I | 8.05055J | 8.05055K | 8.05055L | 8.05055M | 8.05055N |
| 8.05056A | 8.05056B | 8.05056C | 8.05056D | 8.05056E | 8.05056F | 8.05056G | 8.05056H | 8.05056I | 8.05056J | 8.05056K | 8.05056L | 8.05056M | 8.05056N |
| 8.05057A | 8.05057B | 8.05057C | 8.05057D | 8.05057E | 8.05057F | 8.05057G | 8.05057H | 8.05057I | 8.05057J | 8.05057K | 8.05057L | 8.05057M | 8.05057N |
| 8.05058A | 8.05058B | 8.05058C | 8.05058D | 8.05058E | 8.05058F | 8.05058G | 8.05058H | 8.05058I | 8.05058J | 8.05058K | 8.05058L | 8.05058M | 8.05058N |
| 8.05059A | 8.05059B | 8.05059C | 8.05059D | 8.05059E | 8.05059F | 8.05059G | 8.05059H | 8.05059I | 8.05059J | 8.05059K | 8.05059L | 8.05059M | 8.05059N |
| 8.05060A | 8.05060B | 8.05060C | 8.05060D | 8.05060E | 8.05060F | 8.05060G | 8.05060H | 8.05060I | 8.05060J | 8.05060K | 8.05060L | 8.05060M | 8.05060N |
| 8.05061A | 8.05061B | 8.05061C | 8.05061D | 8.05061E | 8.05061F | 8.05061G | 8.05061H | 8.05061I | 8.05061J | 8.05061K | 8.05061L | 8.05061M | 8.05061N |

FOOED "E30EE800

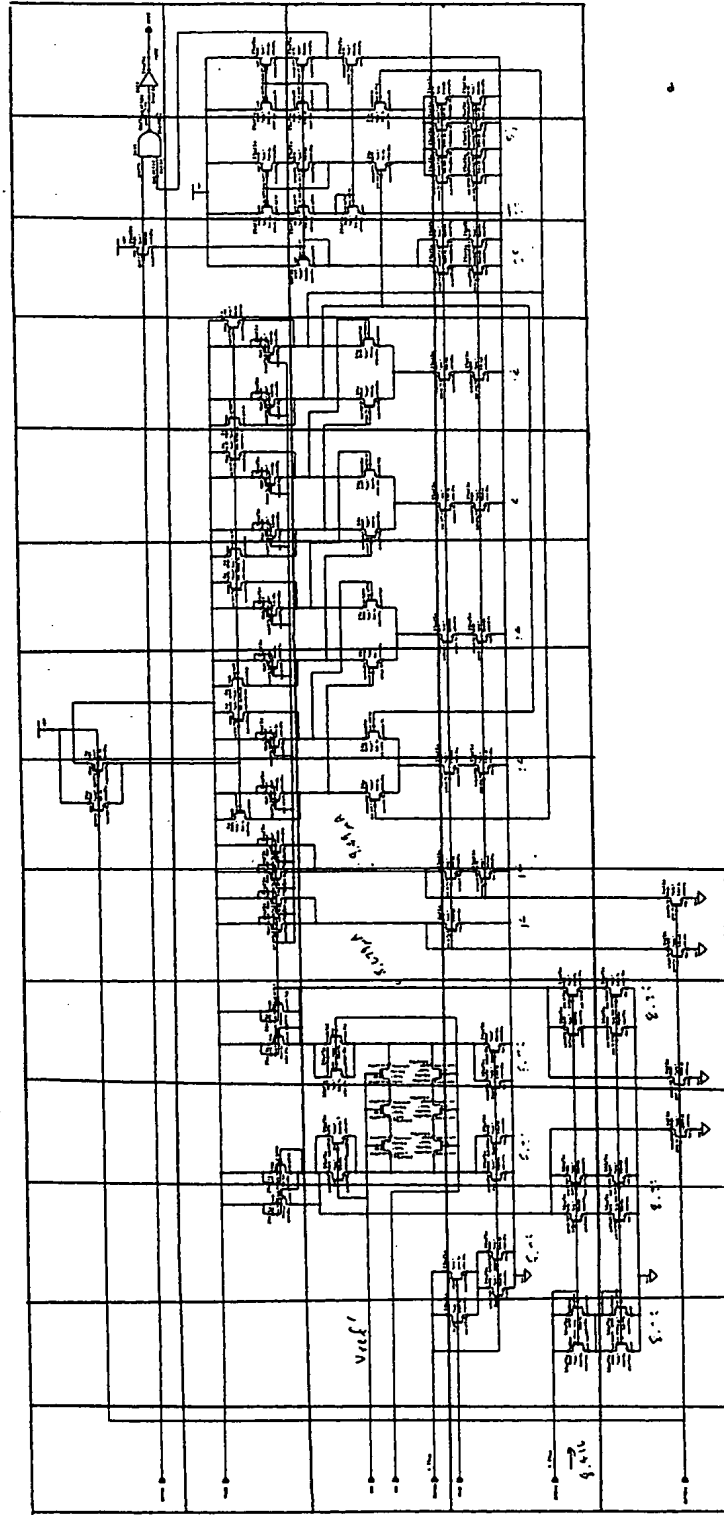


FIG. 8.0505

271, A

FORM 8000

|          |          |
|----------|----------|
| 8.0506AA | 8.0506AB |
| 8.0506BA | 8.0506BB |

EE 8.0506





FIG. 8.050601

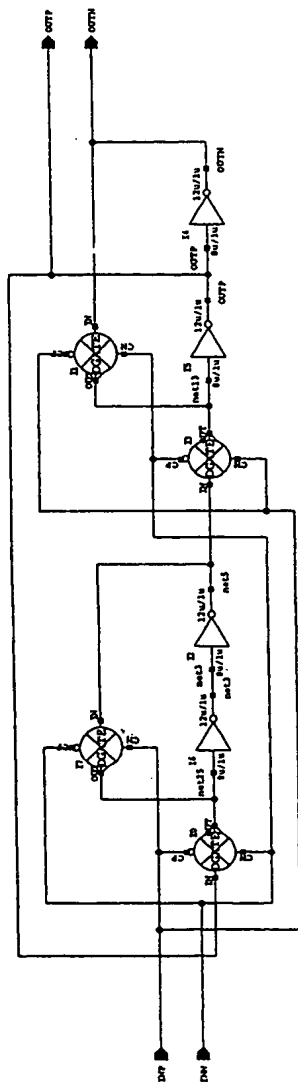


FIG. 8.050601

|                           |  |                           |  |             |           |
|---------------------------|--|---------------------------|--|-------------|-----------|
| <b>micron</b>             |  | PART NO. L03              |  | REV. 000001 |           |
| COMMUNICATIONS, INC.      |  | Title: Rx Clock Generator |  |             |           |
| Flipped-Flip              |  |                           |  |             |           |
| INTEGRATED CIRCUIT DESIGN |  | T03:rev/a/cr_poclogtiff   |  | Rev. B.1    | File: nli |
| CONFIDENTIAL INFORMATION  |  | Sep 26 09:36:05 1994      |  |             |           |

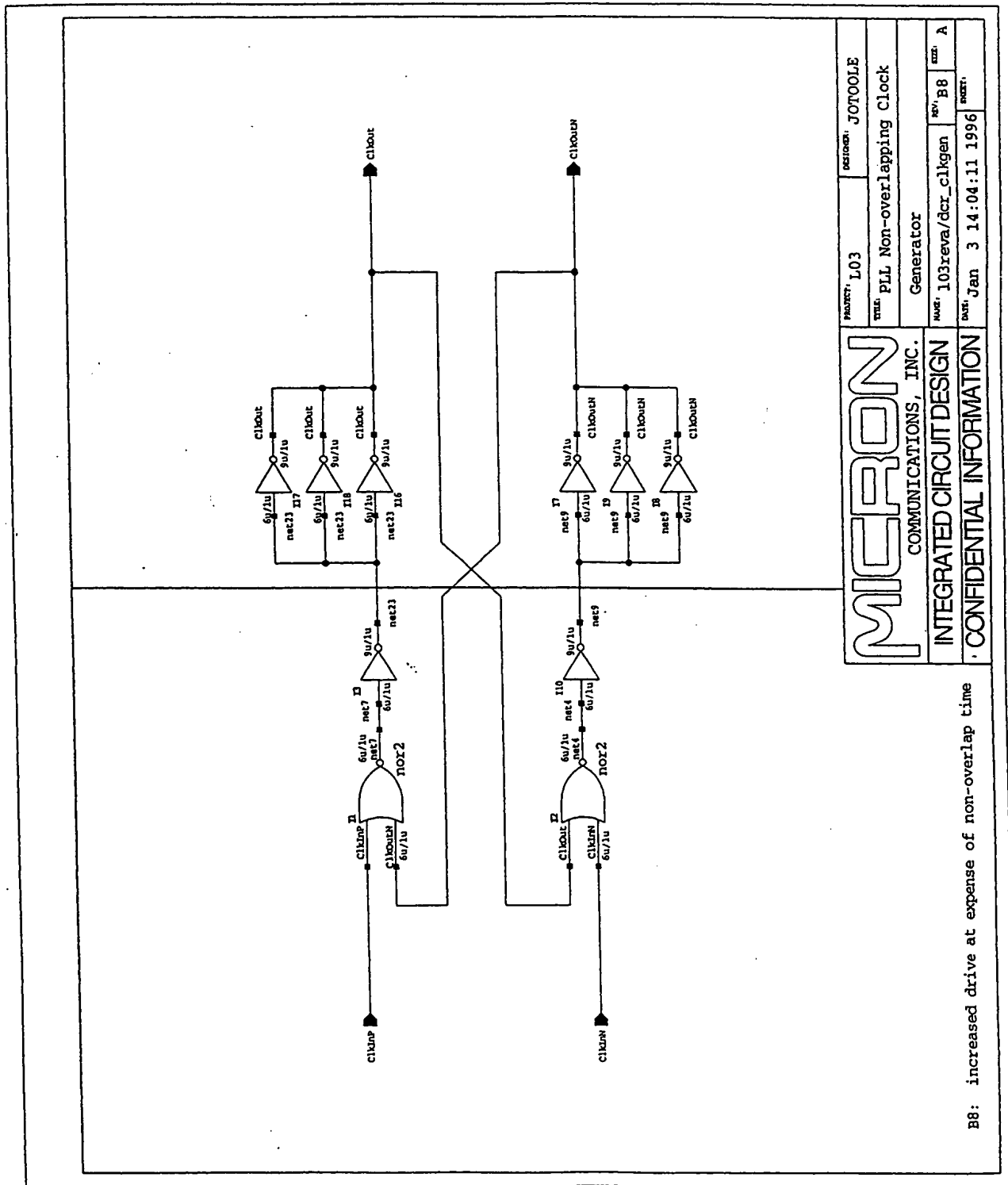
Page 2 of 2

|  |  |
|--|--|
|  |  |
|--|--|

8.0507AB

8.0507AA

EX 8.0507



B8: increased drive at expense of non-overlap time

|                           |  |                                  |                   |
|---------------------------|--|----------------------------------|-------------------|
| <b>MICRON</b>             |  | PROJECT: L03                     | DESIGNER: JOTOOLE |
| COMMUNICATIONS, INC.      |  | TITLE: PLL Non-overlapping Clock |                   |
| INTEGRATED CIRCUIT DESIGN |  | Generator                        |                   |
| CONFIDENTIAL INFORMATION  |  | NAME: 103reva/dcr_clkgen         | REV: B8           |
|                           |  | DATE: Jan 3 14:04:11 1996        | EXT: A            |
|                           |  | PAGE: 1                          |                   |

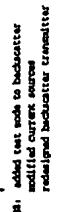
FIG. 8.0507

TABLE 2302360

|        |        |        |        |
|--------|--------|--------|--------|
| 8.06AA | 8.06AB | 8.06AC | 8.06AD |
| 8.06BA | 8.06BB | 8.06BC | 8.06BD |
| 8.06CA | 8.06CB | 8.06CC | 8.06CD |
| 8.06DA | 8.06DB | 8.06DC | 8.06DD |
| 8.06EA | 8.06EB | 8.06EC | 8.06ED |

II II BB.0015

F15.3.06



THUS (Deductor) = 1.4472.46A

**micron**  
COMMUNICATIONS, INC.  
INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

8.0601AA 8.0601AB

|          |          |
|----------|----------|
| 8.0601AA | 8.0601AB |
| 8.0601BA | 8.0601BB |

8.0601AA 8.0601AB

FIG. 8.0601

B6: make tddlock driver smaller

**MICRON**  
COMMUNICATIONS, INC.  
INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

DATE: 10/30/95  
REV: B6  
REV: 10/30/95

DESIGN: J0700LE  
TITLE: Transmitter PLL  
IBIAS=5.43mA

5V

25K

51pF

1.612pF

VCO

Phase/Freq Detector

Charge Pump

Divider

OUT9

OUT10

OUT11

OUT12

OUT13

OUT14

OUT15

OUT16

OUT17

OUT18

OUT19

OUT20

OUT21

OUT22

OUT23

OUT24

OUT25

OUT26

OUT27

OUT28

OUT29

OUT30

OUT31

OUT32

OUT33

OUT34

OUT35

OUT36

OUT37

OUT38

OUT39

OUT40

OUT41

OUT42

OUT43

OUT44

OUT45

OUT46

OUT47

OUT48

OUT49

OUT50

OUT51

OUT52

OUT53

OUT54

OUT55

OUT56

OUT57

OUT58

OUT59

OUT60

OUT61

OUT62

OUT63

OUT64

OUT65

OUT66

OUT67

OUT68

OUT69

OUT70

OUT71

OUT72

OUT73

OUT74

OUT75

OUT76

OUT77

OUT78

OUT79

OUT80

OUT81

OUT82

OUT83

OUT84

OUT85

OUT86

OUT87

OUT88

OUT89

OUT90

OUT91

OUT92

OUT93

OUT94

OUT95

OUT96

OUT97

OUT98

OUT99

OUT100

5V

OUT9

OUT10

OUT11

OUT12

OUT13

OUT14

OUT15

OUT16

OUT17

OUT18

OUT19

OUT20

OUT21

OUT22

OUT23

OUT24

OUT25

OUT26

OUT27

OUT28

OUT29

OUT30

OUT31

OUT32

OUT33

OUT34

OUT35

OUT36

OUT37

OUT38

OUT39

OUT40

OUT41

OUT42

OUT43

OUT44

OUT45

OUT46

OUT47

OUT48

OUT49

OUT50

OUT51

OUT52

OUT53

OUT54

OUT55

OUT56

OUT57

OUT58

OUT59

OUT60

OUT61

OUT62

OUT63

OUT64

OUT65

OUT66

OUT67

OUT68

OUT69

OUT70

OUT71

OUT72

OUT73

OUT74

OUT75

OUT76

OUT77

OUT78

OUT79

OUT80

OUT81

OUT82

OUT83

OUT84

OUT85

OUT86

OUT87

OUT88

OUT89

OUT90

OUT91

OUT92

OUT93

OUT94

OUT95

OUT96

OUT97

OUT98

OUT99

OUT100

5V

OUT9

OUT10

OUT11

OUT12

OUT13

OUT14

OUT15

OUT16

OUT17

OUT18

OUT19

OUT20

OUT21

OUT22

OUT23

OUT24

OUT25

OUT26

OUT27

OUT28

OUT29

OUT30

OUT31

OUT32

OUT33

OUT34

OUT35

OUT36

OUT37

OUT38

OUT39

OUT40

OUT41

OUT42

OUT43

OUT44

OUT45

OUT46

OUT47

OUT48

OUT49

OUT50

OUT51

OUT52

OUT53

OUT54

OUT55

OUT56

OUT57

OUT58

OUT59

OUT60

OUT61

OUT62

OUT63

OUT64

OUT65

OUT66

OUT67

OUT68

OUT69

OUT70

OUT71

OUT72

OUT73

OUT74

OUT75

OUT76

OUT77

OUT78

OUT79

OUT80

OUT81

OUT82

OUT83

OUT84

OUT85

OUT86

OUT87

OUT88

OUT89

OUT90

OUT91

OUT92

OUT93

OUT94

OUT95

OUT96

OUT97

OUT98

OUT99

OUT100

5V

OUT9

OUT10

OUT11

OUT12

OUT13

OUT14

OUT15

OUT16

OUT17

OUT18

OUT19

OUT20

OUT21

OUT22

OUT23

OUT24

OUT25

OUT26

OUT27

OUT28

OUT29

OUT30

OUT31

OUT32

OUT33

OUT34

OUT35

OUT36

OUT37

OUT38

OUT39

OUT40

OUT41

OUT42

OUT43

OUT44

OUT45

OUT46

OUT47

OUT48

OUT49

OUT50

OUT51

OUT52

OUT53

OUT54

OUT55

OUT56

OUT57

OUT58

OUT59

OUT60

OUT61

OUT62

OUT63

OUT64

OUT65

OUT66

OUT67

OUT68

OUT69

OUT70

OUT71

OUT72

OUT73

OUT74

OUT75

OUT76

OUT77

OUT78

OUT79

OUT80

OUT81

OUT82

OUT83

OUT84

OUT85

OUT86

OUT87

OUT88

OUT89

OUT90

OUT91

OUT92

OUT93

OUT94

OUT95

OUT96

OUT97

OUT98

OUT99

OUT100

5V

OUT9

OUT10

OUT11

OUT12

OUT13

OUT14

OUT15

OUT16

OUT17

OUT18

OUT19

OUT20

OUT21

OUT22

OUT23

OUT24

OUT25

OUT26

OUT27

OUT28

OUT29

OUT30

OUT31

OUT32

OUT33

OUT34

OUT35

OUT36

OUT37

OUT38

OUT39

OUT40

OUT41

OUT42

OUT43

OUT44

OUT45

OUT46

OUT47

OUT48

OUT49

OUT50

OUT51

OUT52

OUT53

OUT54

OUT55

OUT56

OUT57

OUT58

OUT59

OUT60

OUT61

<

B6: make blockdet driver smaller

|                           |  |                       |        |                |  |
|---------------------------|--|-----------------------|--------|----------------|--|
| MICRON                    |  | PARTY: L03            |        | REF ID: A70006 |  |
| COMMUNICATIONS, INC.      |  | TITLE: Transmitter PL |        |                |  |
| INTEGRATED CIRCUIT DESIGN |  | IBAS=5, 4thA          |        |                |  |
| CONFIDENTIAL INFORMATION  |  | DATE: 10/27/90        | BY: jg | FILE: RL       |  |
|                           |  | OCT 30 10:32:47 1995  |        | PAGE: 1        |  |

"0020" 2502280

|            |            |            |
|------------|------------|------------|
| 8.060101AA | 8.060101AB | 8.060101AC |
| 8.060101BA | 8.060101BB | 8.060101BC |
| 8.060101CA | 8.060101CB | 8.060101CC |

IL 11 11 11 11 11 11



FILED "e5022000"

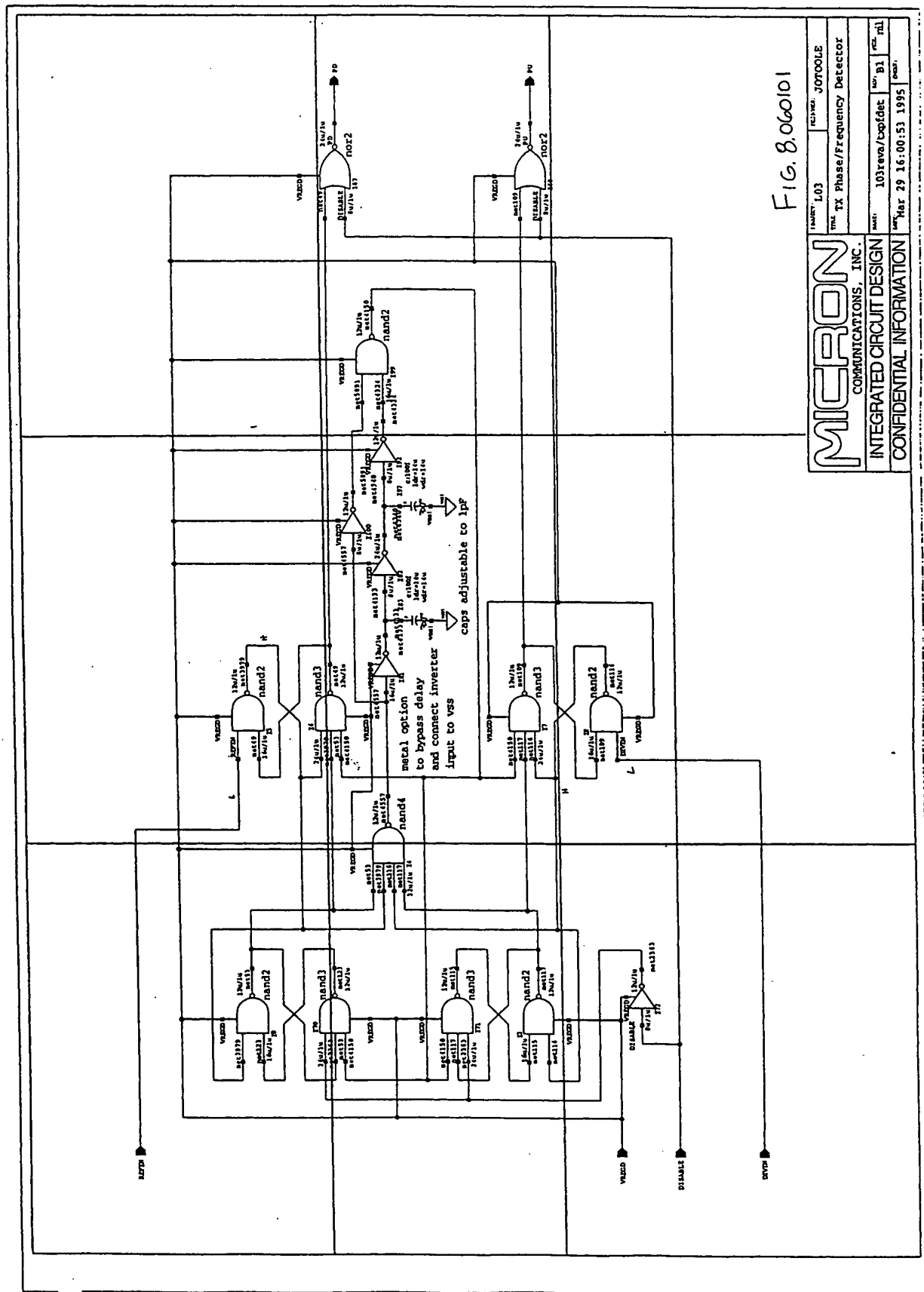


FIG. 8.060101

|                             |               |                          |         |
|-----------------------------|---------------|--------------------------|---------|
| MICRON                      |               | COMMUNICATIONS, INC.     |         |
| INTEGRATED CIRCUIT DESIGN   |               | CONFIDENTIAL INFORMATION |         |
| NAME                        | L03           | REV                      | J0700LE |
| TX Phase/Frequency Detector |               |                          |         |
| DATE                        | 103rev/bp/det | REV                      | B1      |
| Mar 29 16:00:53 1995        |               | DESIGN                   |         |

|            |            |
|------------|------------|
| 8.060102AA | 8.060102AB |
| 8.060102BA | 8.060102BB |

FIG. 8060102

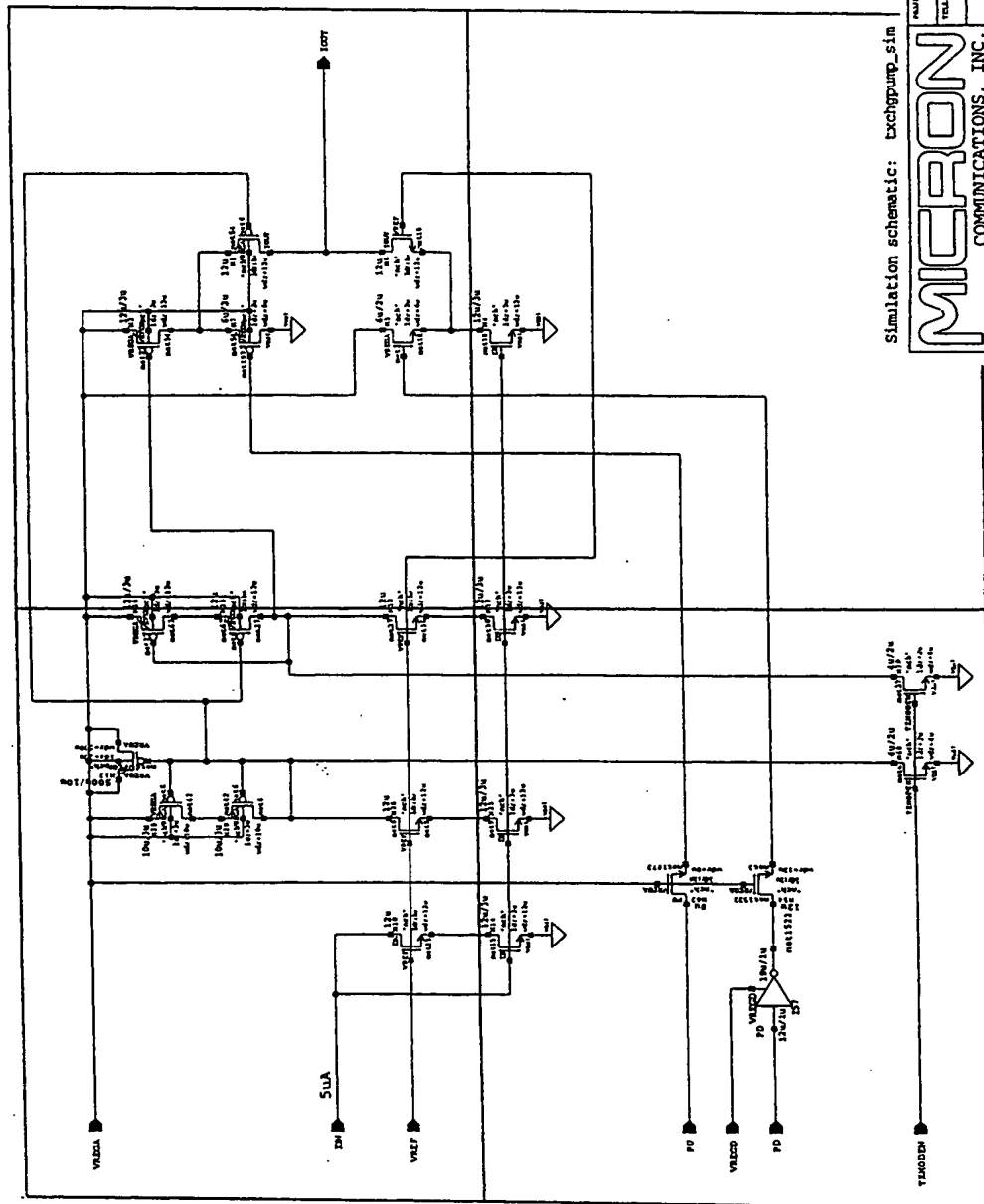


FIG. 8060102

Simulation schematic: exchgpump\_sim

**MICRON**  
COMMUNICATIONS, INC.

|                            |                   |
|----------------------------|-------------------|
| PROJECT: L03               | DESIGNED: JOTOOLE |
| TITLE: TX PLL Charge Pump  |                   |
| REV: 103revA/exchgpump     | REV: B1           |
| DATE: Feb 28 09:55:50 1995 | USER:             |

INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

|            |            |
|------------|------------|
| 8.060103AA | 8.060103AB |
| 8.060103BA | 8.060103BB |
| 8.060103CA | 8.060103CB |

100220 "E3022000

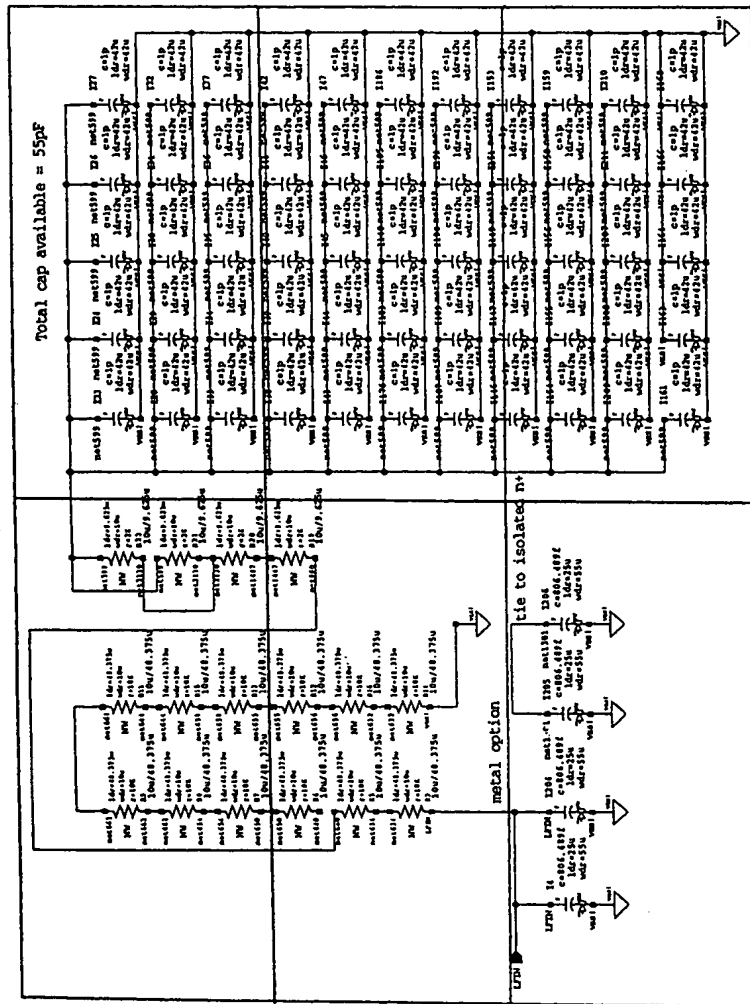


Fig. 8.060103

|                           |                   |                      |
|---------------------------|-------------------|----------------------|
| MICRON                    |                   | COMMUNICATIONS, INC. |
| PROJECT: L03              | REVISION: J0700LE |                      |
| TITLE: TX PLL Loop Filter |                   |                      |
| BW=700KHz                 | PH=60deg          |                      |
| DATE: 103revs/loopfilter  | REV: B8           | REV: J0              |
| DATE: Feb 5 14:40:11 1996 |                   |                      |

B2: moved extra caps to biasok  
B8: moved 2 2K resistors to tmbms

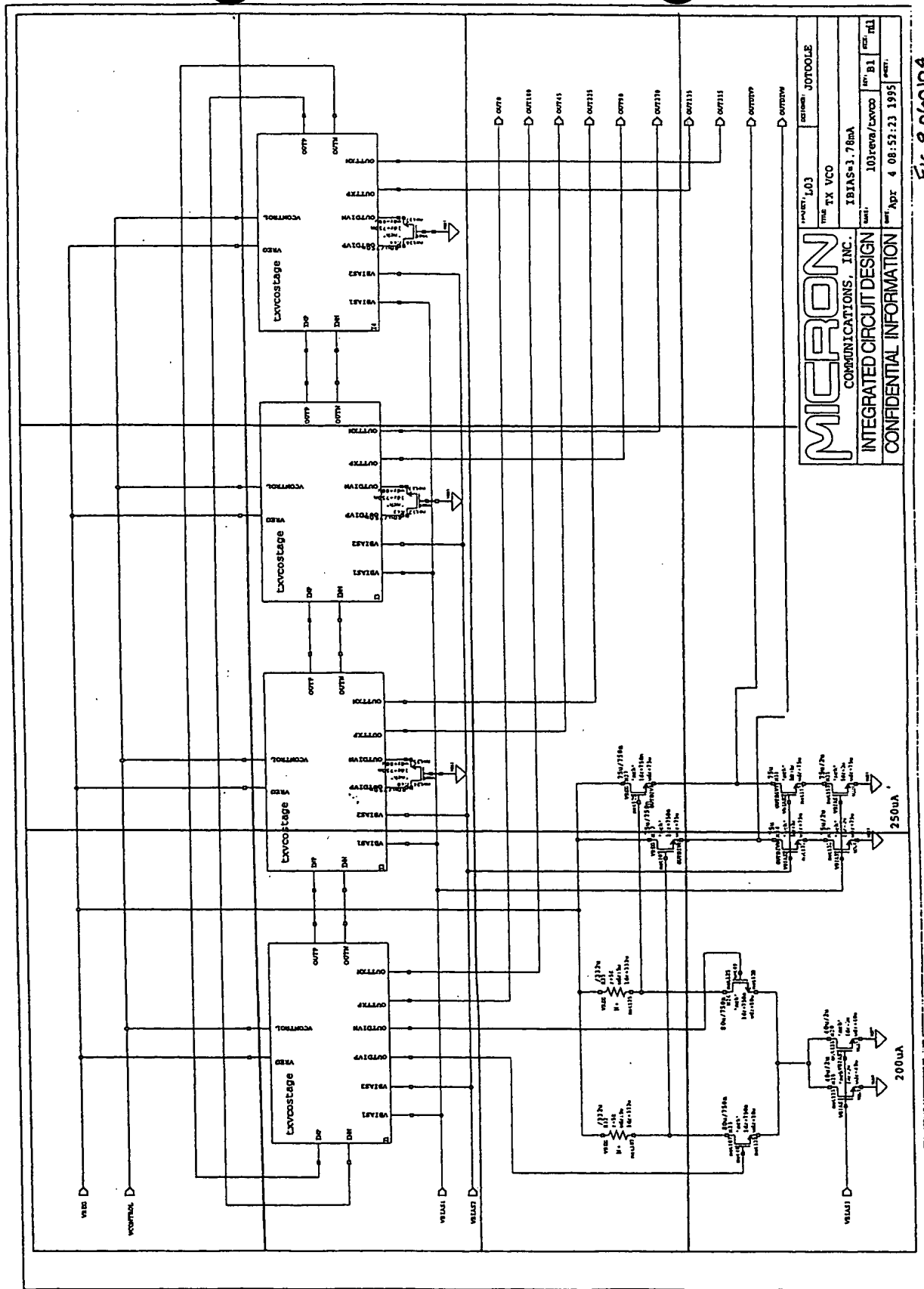
TABLE 2300

MI40-030

|            |            |            |
|------------|------------|------------|
| 8.060104AA | 8.060104AB | 8.060104AC |
| 8.060104BA | 8.060104BB | 8.060104BC |
| 8.060104CA | 8.060104CB | 8.060104CC |
| 8.060104DA | 8.060104DB | 8.060104DC |

II II II II II II II II

63062300



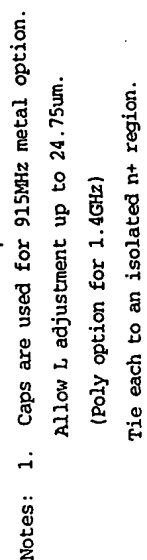
|                           |  |                     |                    |
|---------------------------|--|---------------------|--------------------|
| MICRON                    |  | PROJECT: L03        | EXTENSION: J0700LE |
| COMMUNICATIONS, INC.      |  | TX VCO              |                    |
| INTEGRATED CIRCUIT DESIGN |  | IBIAS=3.78mA        |                    |
| CONFIDENTIAL INFORMATION  |  | 103MHz/103.7MHz     |                    |
|                           |  | Rev. B1             | Rev. B1            |
|                           |  | Apr 4 08:52:23 1995 | Rev. B1            |

Fig. 8.060104

|              |              |              |              |
|--------------|--------------|--------------|--------------|
| 8.06010401AA | 8.06010401AB | 8.06010401AC | 8.06010401AD |
| 8.06010401BA | 8.06010401BB | 8.06010401BC | 8.06010401BD |

11070109008  
622





|                           |                      |                         |    |
|---------------------------|----------------------|-------------------------|----|
| <b>PROJECT</b> L03        |                      | <b>DESIGNER</b> JOTOOLE |    |
| <b>TITLE</b> TX VCO Stage |                      |                         |    |
| <b>IBIAS</b> =833uA       |                      |                         |    |
| <b>NAME</b>               | 103-reva/bxvco stage | <b>REV</b>              | B1 |
| <b>DATE</b>               | Apr 26 17:02:22 1995 |                         |    |

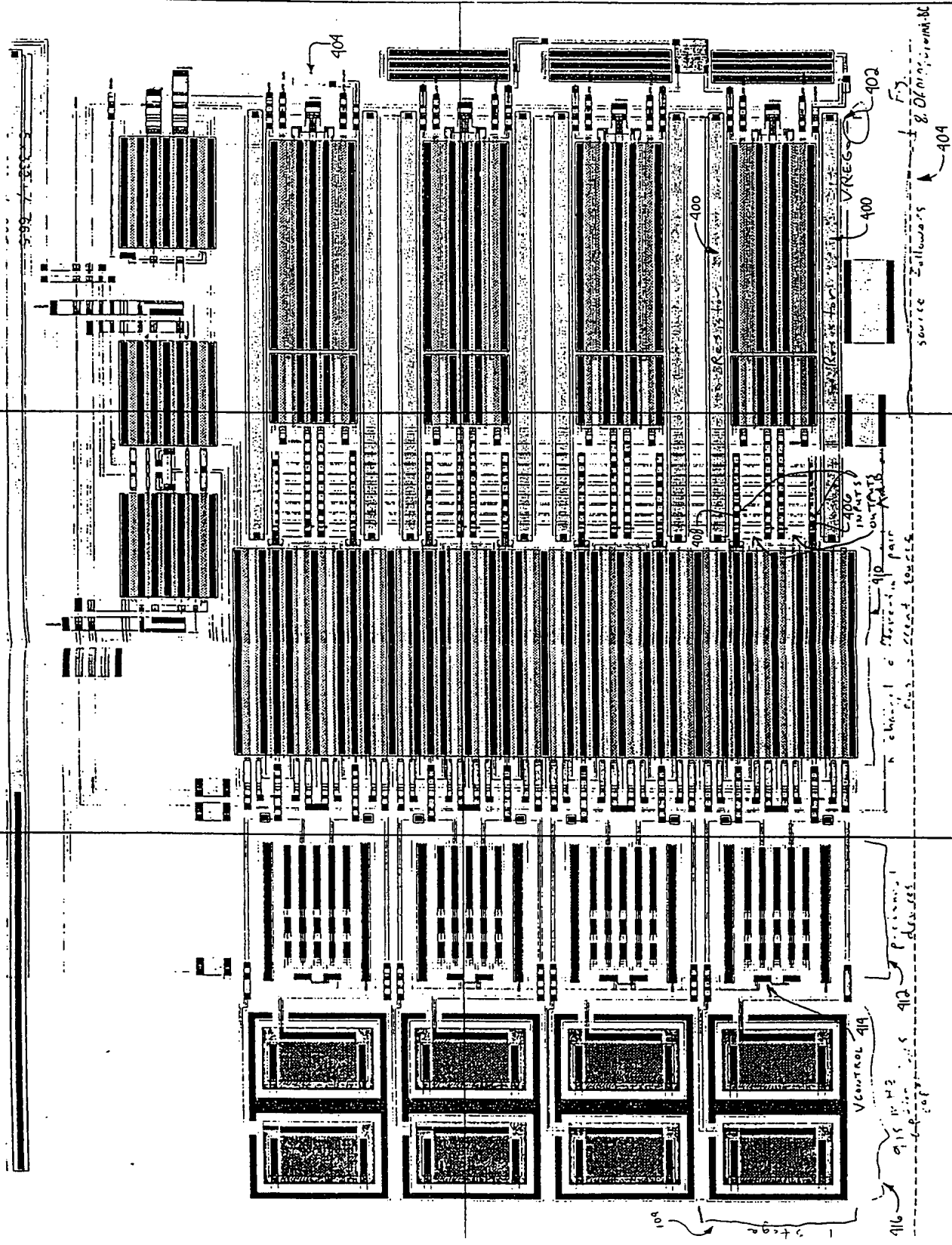
**0906**

MI40-030

|                |                |                |
|----------------|----------------|----------------|
| 8.0601040101AA | 8.0601040101AB | 8.0601040101AC |
| 8.0601040101BA | 8.0601040101BB | 8.0601040101BC |

11.05.2017

FIGURE 2



|            |            |            |            |
|------------|------------|------------|------------|
| 8.060105AA | 8.060105AB | 8.060105AC | 8.060105AD |
| 8.060105BA | 8.060105BB | 8.060105BC | 8.060105BD |
| 8.060105CA | 8.060105CB | 8.060105CC | 8.060105CD |
| 8.060105DA | 8.060105DB | 8.060105DC | 8.060105DD |

FIG. 8.06.0105

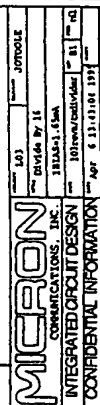
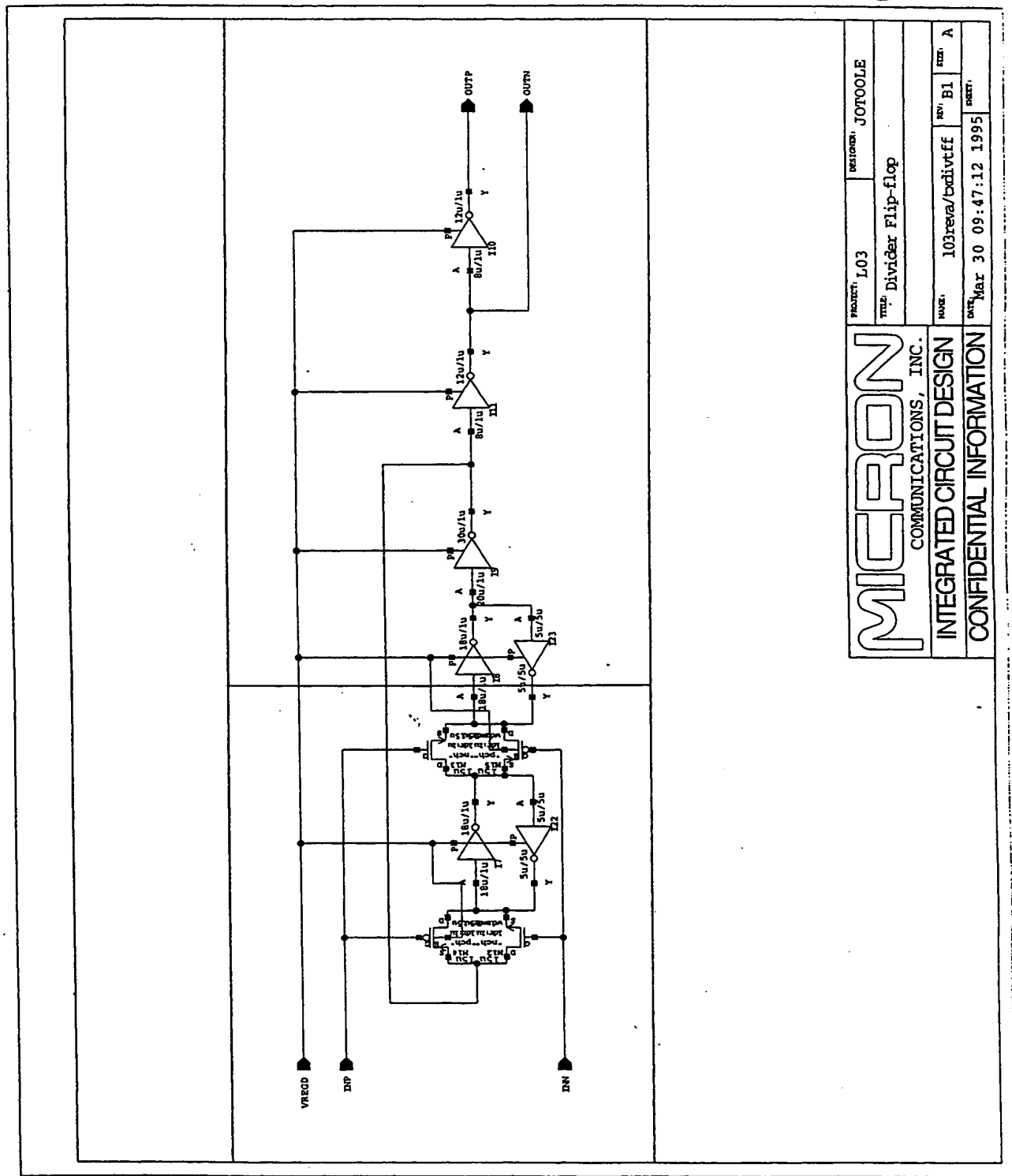


TABLE "E" 802360

|              |              |
|--------------|--------------|
| 8.06010501AA | 8.06010501AB |
|--------------|--------------|

EX 8.06010501



|                           |  |                            |                   |
|---------------------------|--|----------------------------|-------------------|
| <b>MICRON</b>             |  | PROJECT: L03               | DESIGNER: JOTOOLE |
| COMMUNICATIONS, INC.      |  | TITLE: Divider Flip-flop   |                   |
| INTEGRATED CIRCUIT DESIGN |  | NAME: 103reva/bdvtff       | REV: B1           |
| CONFIDENTIAL INFORMATION  |  | DATE: Mar 30 09:47:12 1995 | SIZE: A           |

FIG. 8.06010501

TABLE 2-2

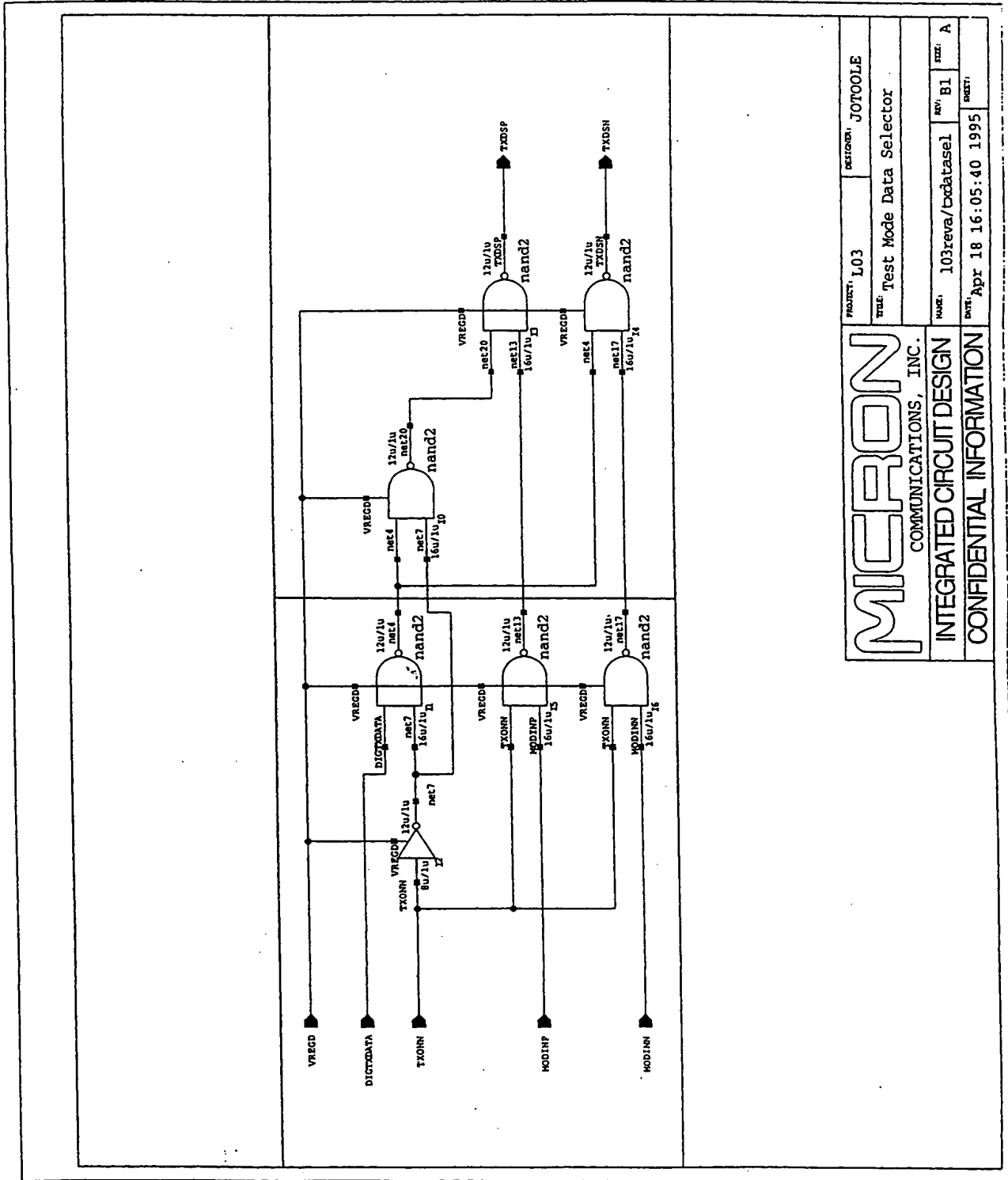
MI40-030

|          |          |
|----------|----------|
| 8.0602AA | 8.0602AB |
|----------|----------|

TABLE 2-2



FILED 2502280



|                           |  |                              |                   |
|---------------------------|--|------------------------------|-------------------|
| MICRON                    |  | PROJECT: L03                 | DESIGNER: JOTOOLE |
| COMMUNICATIONS, INC.      |  | TRUE Test Mode Data Selector |                   |
| INTEGRATED CIRCUIT DESIGN |  | NAME: 103:eva/bdatasel       | REV: B1           |
| CONFIDENTIAL INFORMATION  |  | DATE: Apr 18 16:05:40 1995   | SIZE: A           |

FIG. 8.0602

FOUO" e90e2300

|          |          |
|----------|----------|
| 8.0603AA | 8.0603AB |
|----------|----------|

IX BB.06003

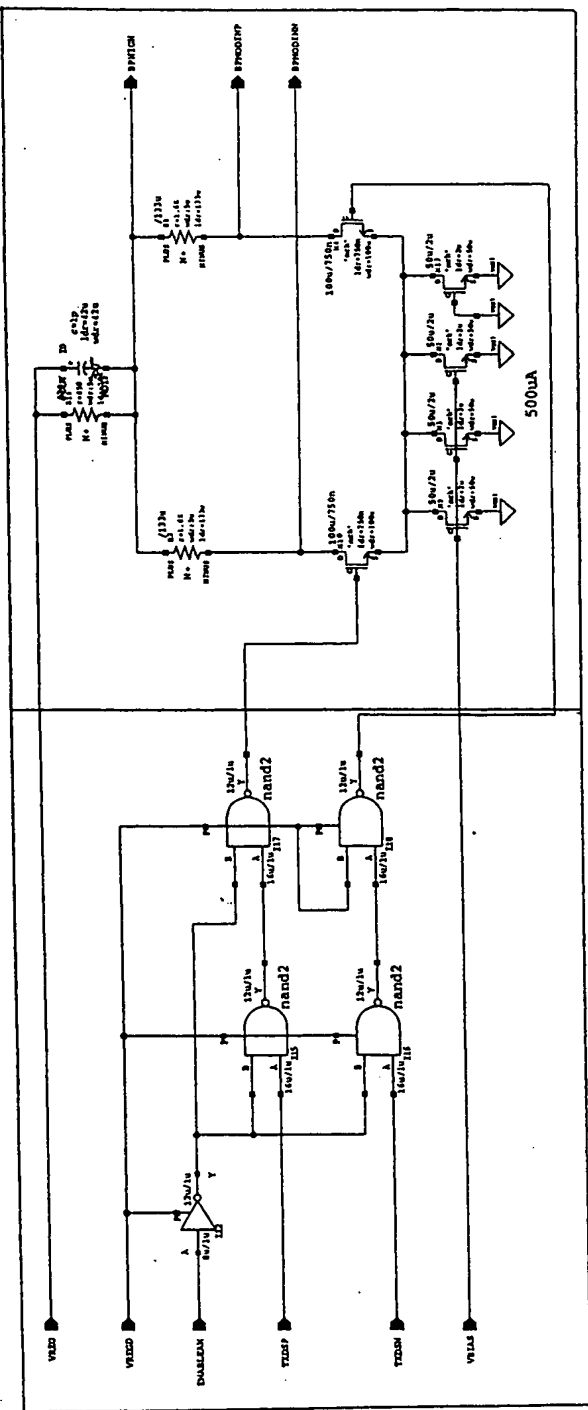


Fig. 8.0603

**NICERON COMMUNICATIONS INC.**

## INTEGRATED CIRCUIT DESIGN

**CONFIDENTIAL INFORMATION**

370040J  
JAN 1964

BPSK Modulation Driver

**IBIAS=500uA**

|                |         |           |
|----------------|---------|-----------|
| 103reva/txbpsk | mod: B8 | size: mil |
|----------------|---------|-----------|

Page 18 10:28:46 1996

**B8: modified current source**

|          |          |
|----------|----------|
| 8.0604AA | 8.0604AB |
|----------|----------|

**8.0604AA**

611 88.06004

**DEPARTMENT OF THE ARMY**

SECRET

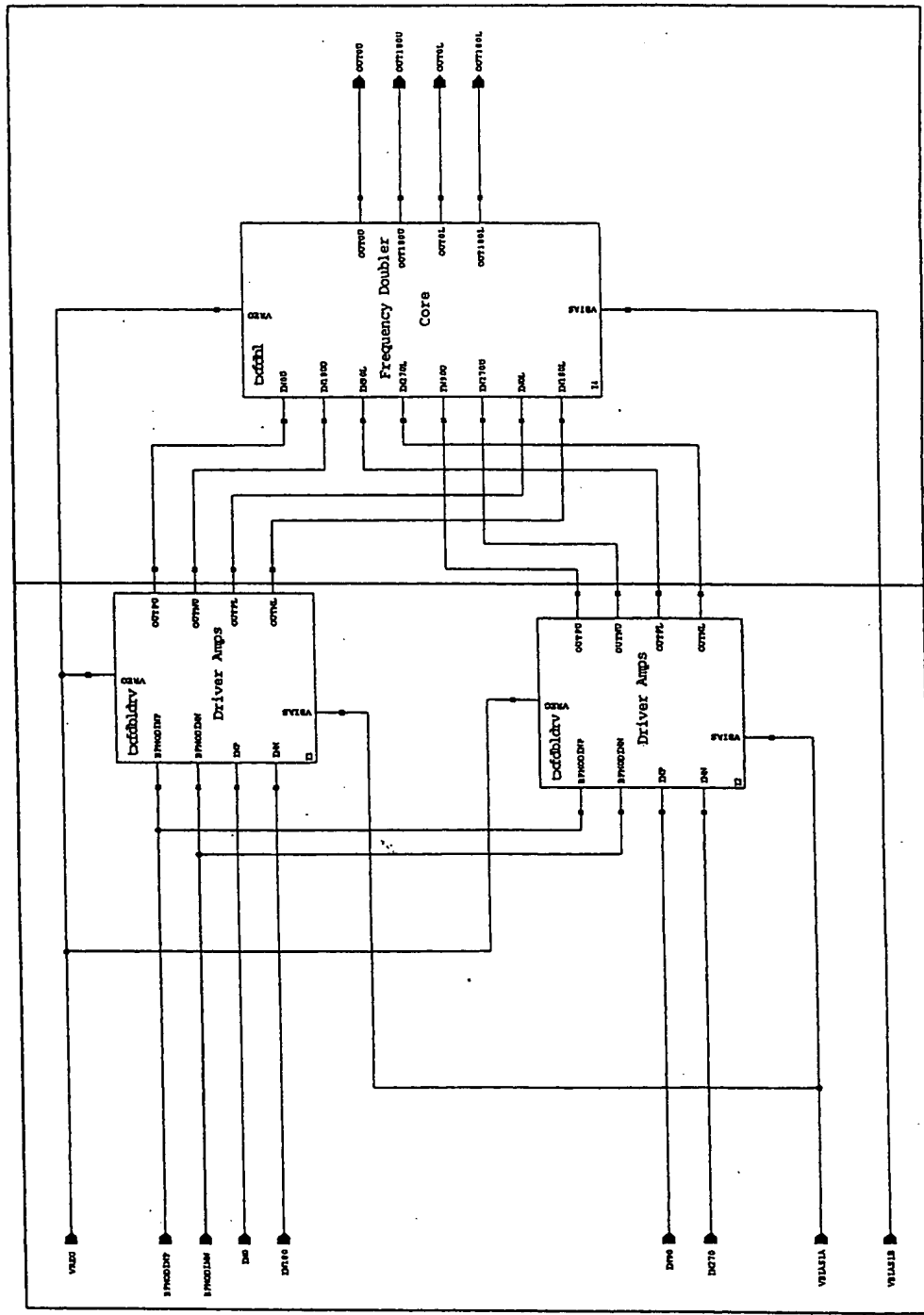


Fig. 8.0604

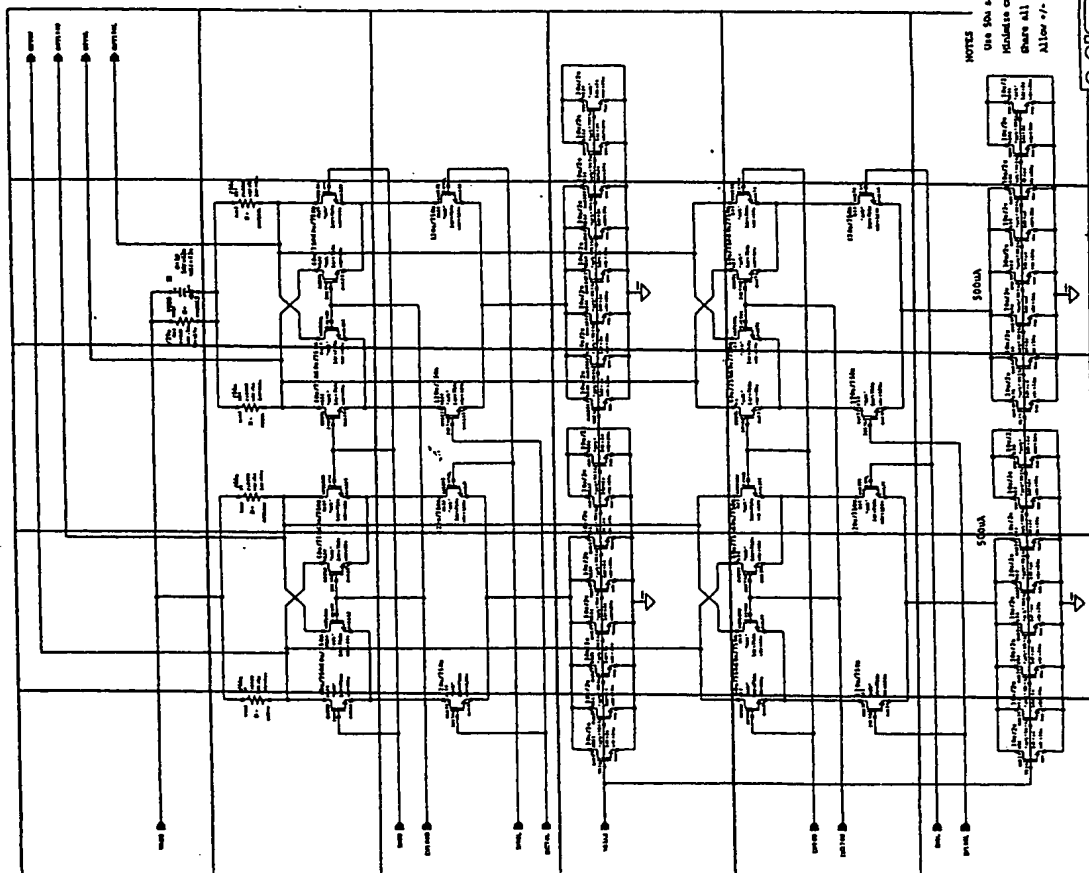
|                           |                   |
|---------------------------|-------------------|
| <b>MICRON</b>             |                   |
| COMMUNICATIONS, INC.      |                   |
| INTEGRATED CIRCUIT DESIGN |                   |
| CONFIDENTIAL INFORMATION  |                   |
| PROJECT: L03              | REVISION: J0700LE |
| Title: Frequency Doubler  |                   |
| IBIAS=4mA                 |                   |
| DATE: 10/17/13 1995       | REV: 91           |
| PART: 512                 |                   |
| REV: 1                    |                   |

8.060401AA 8.060401AB 8.060401AC 8.060401AD 8.060401AE  
8.060401BA 8.060401BB 8.060401BC 8.060401BD 8.060401BE  
8.060401CA 8.060401CB 8.060401CC 8.060401CD 8.060401CE  
8.060401DA 8.060401DB 8.060401DC 8.060401DD 8.060401DE  
8.060401EA 8.060401EB 8.060401EC 8.060401ED 8.060401EE  
8.060401FA 8.060401FB 8.060401FC 8.060401FD 8.060401FE

|            |            |            |            |            |
|------------|------------|------------|------------|------------|
| 8.060401AA | 8.060401AB | 8.060401AC | 8.060401AD | 8.060401AE |
| 8.060401BA | 8.060401BB | 8.060401BC | 8.060401BD | 8.060401BE |
| 8.060401CA | 8.060401CB | 8.060401CC | 8.060401CD | 8.060401CE |
| 8.060401DA | 8.060401DB | 8.060401DC | 8.060401DD | 8.060401DE |
| 8.060401EA | 8.060401EB | 8.060401EC | 8.060401ED | 8.060401EE |
| 8.060401FA | 8.060401FB | 8.060401FC | 8.060401FD | 8.060401FE |

8.060401 8.060401 8.060401 8.060401 8.060401

Fig. 8.06.0901



NOTES

- Use 500 segments for all devices.
- Minimize capacitance on all nodes (drains have priority).
- Share all source and drain nodes.
- Allow +/- 20% adjustment on resistors at power supply end.

[illegible]

10. modified current sources

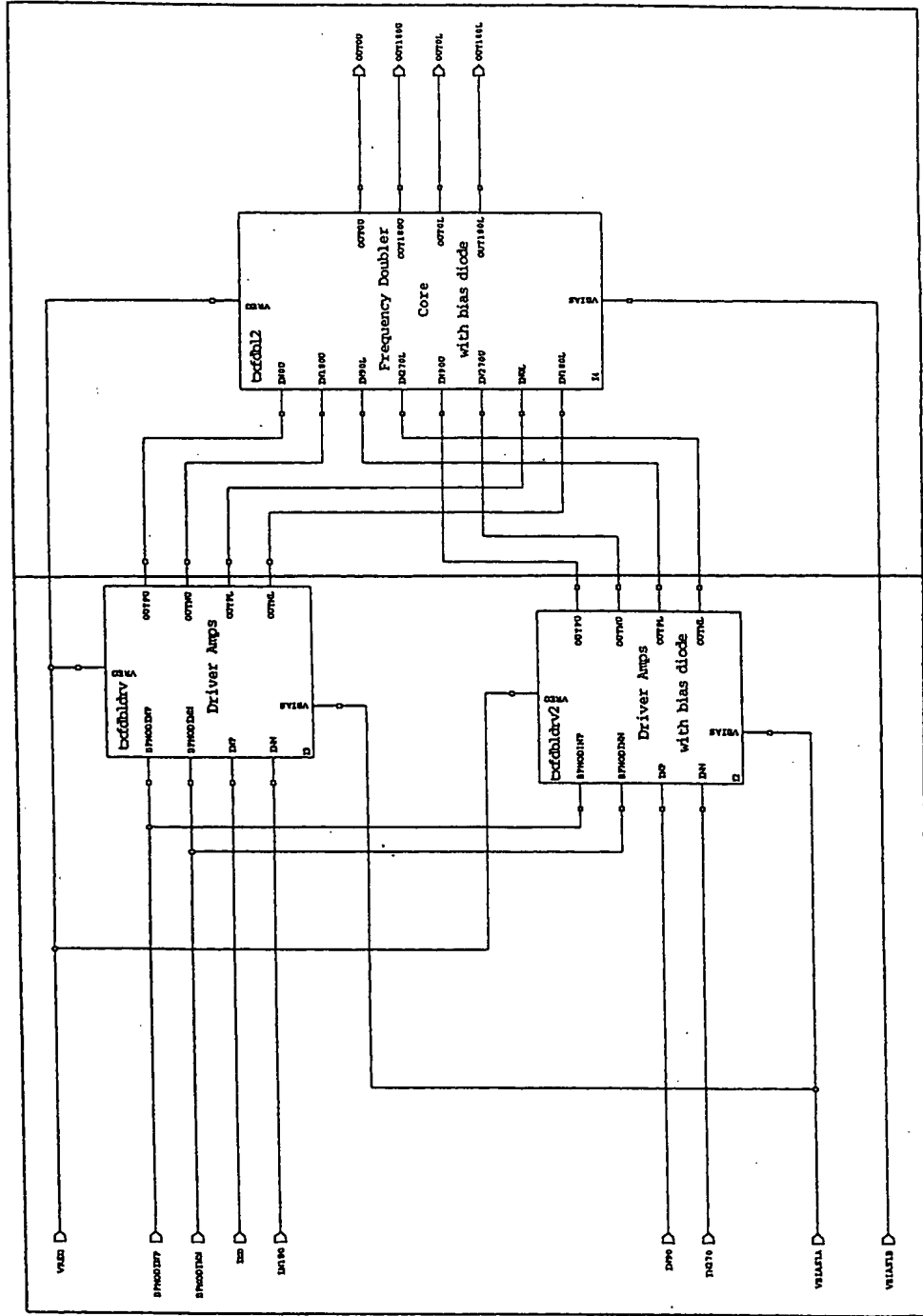
|          |          |
|----------|----------|
| 8.0605AA | 8.0605AB |
|----------|----------|

8.0605AA

58.0605  
II



www.e3000.com



|                           |  |                            |                   |
|---------------------------|--|----------------------------|-------------------|
| MICRON                    |  | PROJECT: L03               | REVISION: J0000LE |
| COMMUNICATIONS, INC.      |  | Title: Frequency Doubler   |                   |
| INTEGRATED CIRCUIT DESIGN |  | IBIAS=4mA                  | SIZE: n1          |
| CONFIDENTIAL INFORMATION  |  | DATE: 10/26/96             | BY: J8            |
|                           |  | DATE: Jan 12 17:22:51 1996 | POST:             |

B8: current sources modified

TABLE 8.060501

|            |            |            |            |
|------------|------------|------------|------------|
| 8.060501AA | 8.060501AB | 8.060501AC | 8.060501AD |
| 8.060501BA | 8.060501BB | 8.060501BC | 8.060501BD |
| 8.060501CA | 8.060501CB | 8.060501CC | 8.060501CD |

TABLE 8.060501

- Minimize capacitance on output nodes.
- Share all source/drain nodes.
- Allow +/- 20% adjustment on resistors at supply end.

Fig. 8060501

|          |            |
|----------|------------|
| REF. L03 | REF. J0000 |
|----------|------------|

**Double Driver Atmos**

TRTAS=1mB

NOTES - CONTINUED

1006 26.75 12 1006

# NICRON

## INTEGRATED CIRCUIT DESIGN

**CONFIDENTIAL INFORMATION**

**FB8: modified current sources**

|                   |                   |                   |                   |
|-------------------|-------------------|-------------------|-------------------|
| <i>8.060502AA</i> | <i>8.060502AB</i> | <i>8.060502AC</i> | <i>8.060502AD</i> |
| <i>8.060502BA</i> | <i>8.060502BB</i> | <i>8.060502BC</i> | <i>8.060502BD</i> |
| <i>8.060502CA</i> | <i>8.060502CB</i> | <i>8.060502CC</i> | <i>8.060502CD</i> |

И. И. Б. 060502



8.060503E3

|            |            |            |            |            |
|------------|------------|------------|------------|------------|
| 8.060503AA | 8.060503AB | 8.060503AC | 8.060503AD | 8.060503AE |
| 8.060503BA | 8.060503BB | 8.060503BC | 8.060503BD | 8.060503BE |
| 8.060503CA | 8.060503CB | 8.060503CC | 8.060503CD | 8.060503CE |
| 8.060503DA | 8.060503DB | 8.060503DC | 8.060503DD | 8.060503DE |
| 8.060503EA | 8.060503EB | 8.060503EC | 8.060503ED | 8.060503EE |
| 8.060503FA | 8.060503FB | 8.060503FC | 8.060503FD | 8.060503FE |

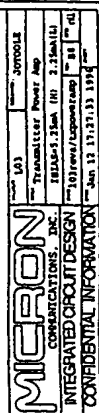
8.060503E3



|          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|
| 8.0606AA | 8.0606AB | 8.0606AC | 8.0606AD | 8.0606AE | 8.0606AF | 8.0606AG | 8.0606AH |
| 8.0606BA | 8.0606BB | 8.0606BC | 8.0606BD | 8.0606BE | 8.0606BF | 8.0606BG | 8.0606BH |
| 8.0606CA | 8.0606CB | 8.0606CC | 8.0606CD | 8.0606CE | 8.0606CF | 8.0606CG | 8.0606CH |
| 8.0606DA | 8.0606DB | 8.0606DC | 8.0606DD | 8.0606DE | 8.0606DF | 8.0606DG | 8.0606DH |
| 8.0606EA | 8.0606EB | 8.0606EC | 8.0606ED | 8.0606EE | 8.0606EF | 8.0606EG | 8.0606EH |
| 8.0606FA | 8.0606FB | 8.0606FC | 8.0606FD | 8.0606FE | 8.0606FF | 8.0606FG | 8.0606FH |
|          |          | 8.0606GC | 8.0606GD | 8.0606GE |          |          |          |
| 8.0606HA | 8.0606HB | 8.0606HC | 8.0606HD | 8.0606HE |          |          |          |
|          | 8.0606IB | 8.0606IC | 8.0606ID | 8.0606IE |          |          |          |



FIG. 8.0606



|          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8.0607AA | 8.0607AB | 8.0607AC | 8.0607AD | 8.0607AE | 8.0607AF | 8.0607AG | 8.0607AH | 8.0607AI | 8.0607AJ |
| 8.0607BA | 8.0607BB | 8.0607BC | 8.0607BD | 8.0607BE | 8.0607BF | 8.0607BG | 8.0607BH | 8.0607BI | 8.0607BJ |
| 8.0607CA | 8.0607CB | 8.0607CC | 8.0607CD | 8.0607CE | 8.0607CF | 8.0607CG | 8.0607CH | 8.0607CI | 8.0607CJ |
| 8.0607DA | 8.0607DB | 8.0607DC | 8.0607DD | 8.0607DE | 8.0607DF | 8.0607DG | 8.0607DH | 8.0607DI | 8.0607DJ |
| 8.0607EA | 8.0607EB | 8.0607EC | 8.0607ED | 8.0607EE | 8.0607EF | 8.0607EG | 8.0607EH | 8.0607EI | 8.0607EJ |
| 8.0607FA | 8.0607FB | 8.0607FC | 8.0607FD | 8.0607FE | 8.0607FF | 8.0607FG | 8.0607FH | 8.0607FI | 8.0607FJ |
| 8.0607GA | 8.0607GB | 8.0607GC | 8.0607GD | 8.0607GE | 8.0607GF | 8.0607GG | 8.0607GH | 8.0607GI | 8.0607GJ |
| 8.0607HA | 8.0607HB | 8.0607HC | 8.0607HD | 8.0607HE | 8.0607HF | 8.0607HG | 8.0607HH | 8.0607HI | 8.0607HJ |
| 8.0607IA | 8.0607IB | 8.0607IC | 8.0607ID | 8.0607IE | 8.0607IF | 8.0607IG | 8.0607IH | 8.0607II | 8.0607IJ |
| 8.0607JA | 8.0607JB | 8.0607JC | 8.0607JD | 8.0607JE | 8.0607JF | 8.0607JG | 8.0607JH | 8.0607JI | 8.0607JJ |

И. П. Г.

[illegible]

Fig. 8.0607

FOUO - E9999999

|          |          |
|----------|----------|
| 8.0608AA | 8.0608AB |
| 8.0608BA | 8.0608BB |

EX 07 8.0608BB

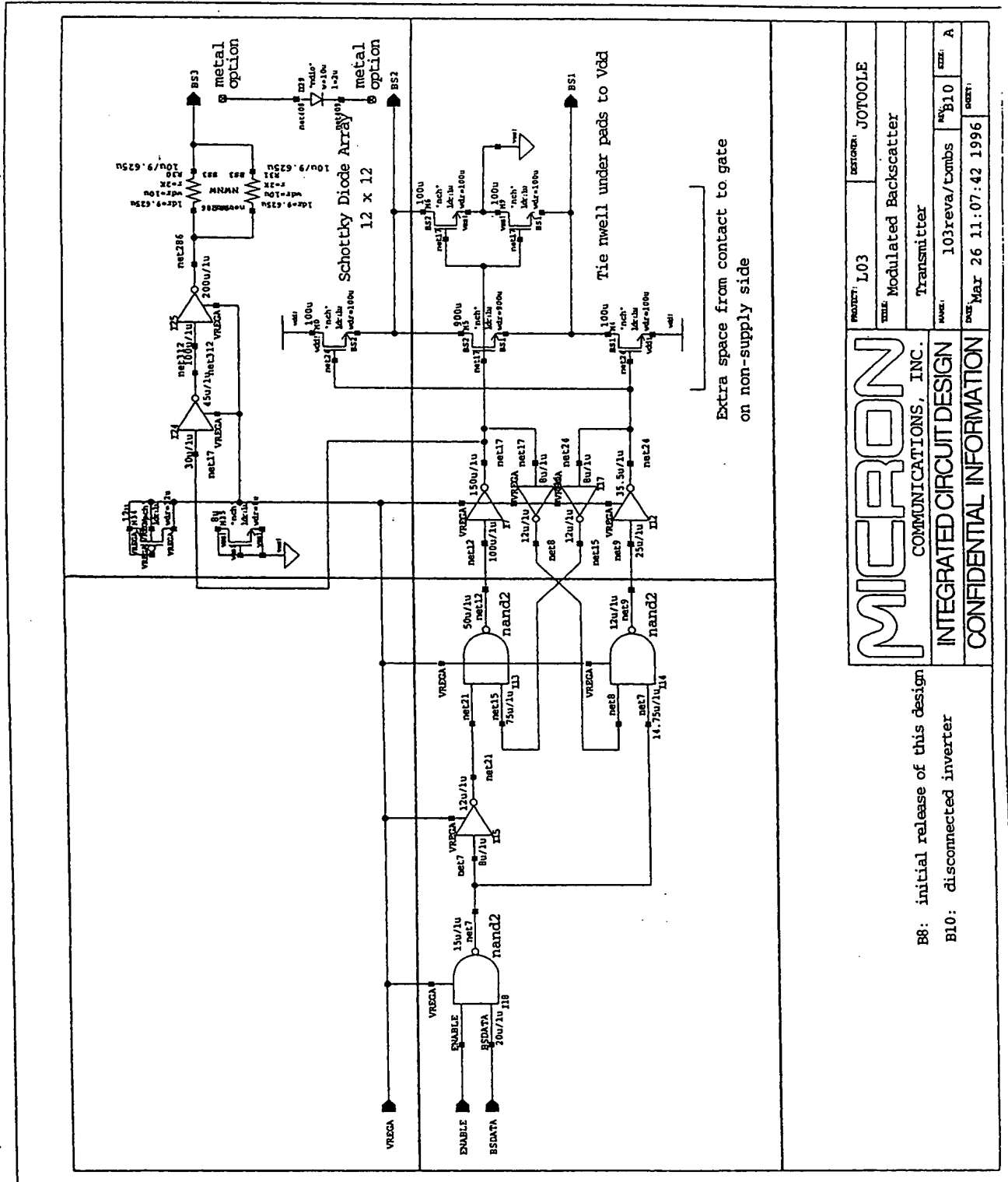


Fig. 8.0608

|  |  |                   |
|--|--|-------------------|
| <b>MICRON</b><br>COMMUNICATIONS, INC.<br>INTEGRATED CIRCUIT DESIGN<br>CONFIDENTIAL INFORMATION | PROJECT: L03                             | DESIGNER: JOTOOLE |
|  | TITLE: Modulated Backscatter Transmitter |                   |
|  | NAME: 103reva/ombs                       | REV: B10          |
|  | DATE: Mar 26 11:07:42 1996               | SIZE: A           |

B8: initial release of this design  
 B10: disconnected inverter

Page 6 of 6

|        |        |
|--------|--------|
| 8.07AA | 8.07AB |
| 8.07BA | 8.07BB |

8.07

THIS DOCUMENT CONTAINS UNCLASSIFIED INFORMATION

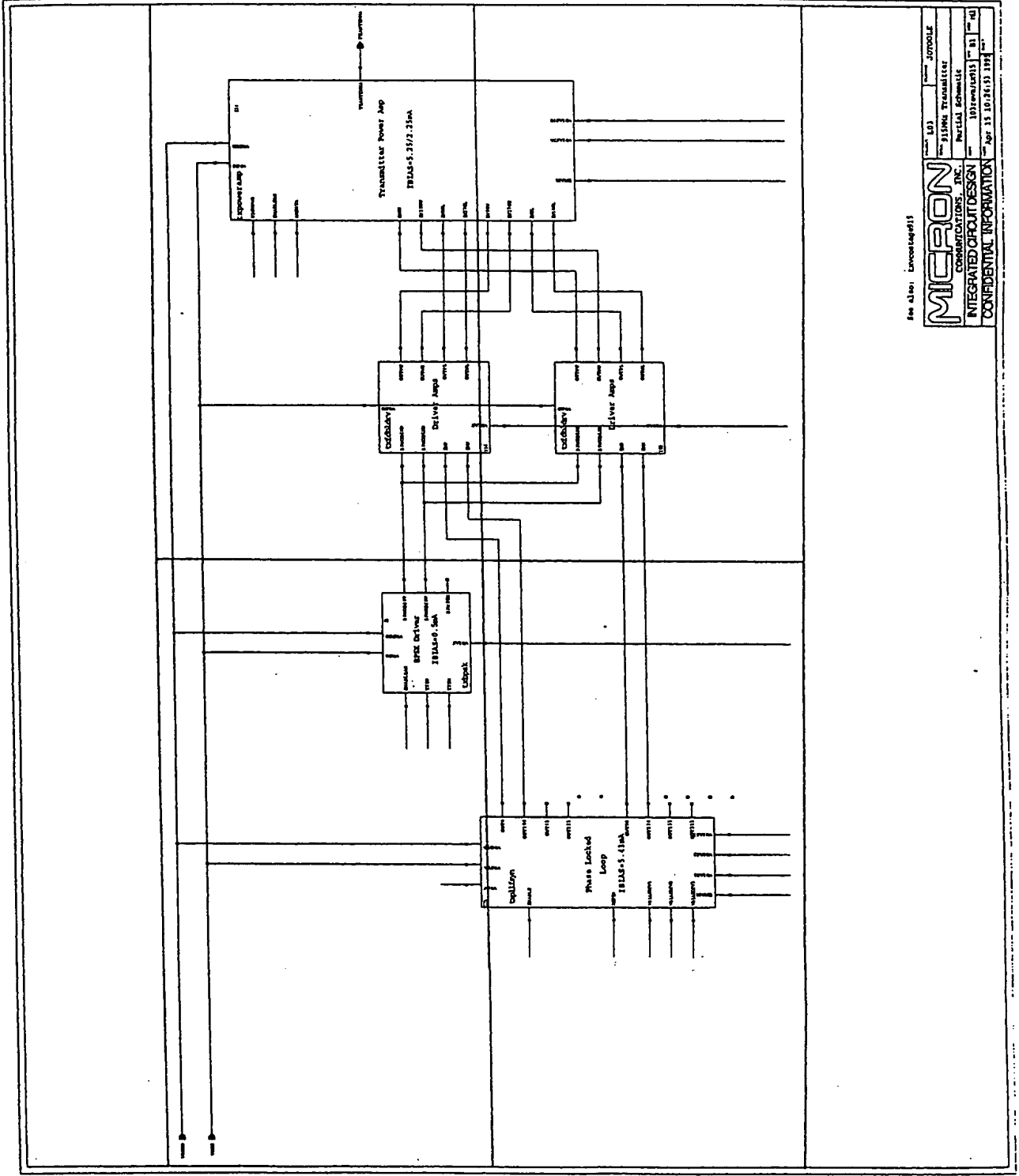


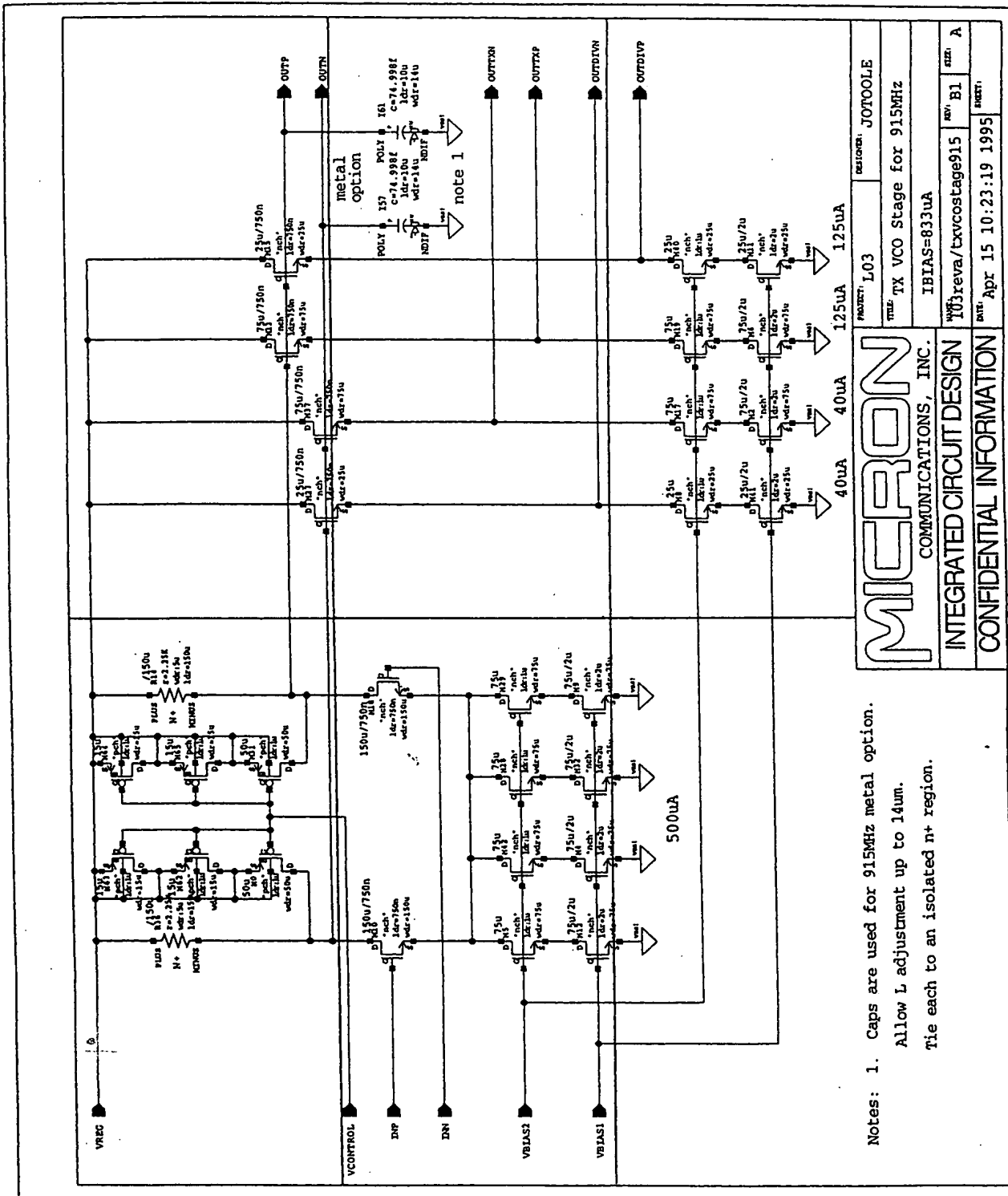
Fig. 8.07

|                           |  |      |  |
|---------------------------|--|------|--|
| See Also: L20             |  | JUNO |  |
| MICRON                    |  | JUNO |  |
| INTEGRATED CIRCUIT DESIGN |  | JUNO |  |
| CONFIDENTIAL INFORMATION  |  | JUNO |  |

|          |          |
|----------|----------|
| 8.0701AA | 8.0701AB |
| 8.0701BA | 8.0701BB |
| 8.0701CA | 8.0701CB |

И. И. Б.





Notes: 1. Caps are used for 915MHz metal option.  
 Allow L adjustment up to 14um.  
 Tie each to an isolated n+ region.

|                           |  |                                |                   |
|---------------------------|--|--------------------------------|-------------------|
| <b>MICRON</b>             |  | PRODUCT: L03                   | REVISION: J0700LE |
| COMMUNICATIONS, INC.      |  | TITLE: TX VCO Stage for 915MHz |                   |
| INTEGRATED CIRCUIT DESIGN |  | IBIAS=833uA                    |                   |
| CONFIDENTIAL INFORMATION  |  | W03revA/txvcostage915          | REV: B1           |
|                           |  | DATE: Apr 15 10:23:19 1995     | DESIGN: A         |

FIG. 8.0701

TABLE 2-3000000

|     |     |
|-----|-----|
| 9AA | 9AB |
| 9BA | 9BB |
| 9CA | 9CB |

11 11 11

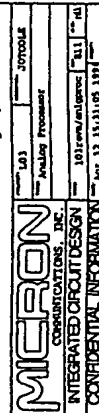
[illegible]

TABLE 9.01

|        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 9.01AA | 9.01AB | 9.01AC | 9.01AD | 9.01AE | 9.01AF | 9.01AG | 9.01AH |
| 9.01BA | 9.01BB | 9.01BC | 9.01BD | 9.01BE | 9.01BF | 9.01BG | 9.01BH |
| 9.01CA | 9.01CB | 9.01CC | 9.01CD | 9.01CE | 9.01CF | 9.01CG | 9.01CH |
| 9.01DA | 9.01DB | 9.01DC | 9.01DD | 9.01DE | 9.01DF | 9.01DG | 9.01DH |

II II II II

4020 50200

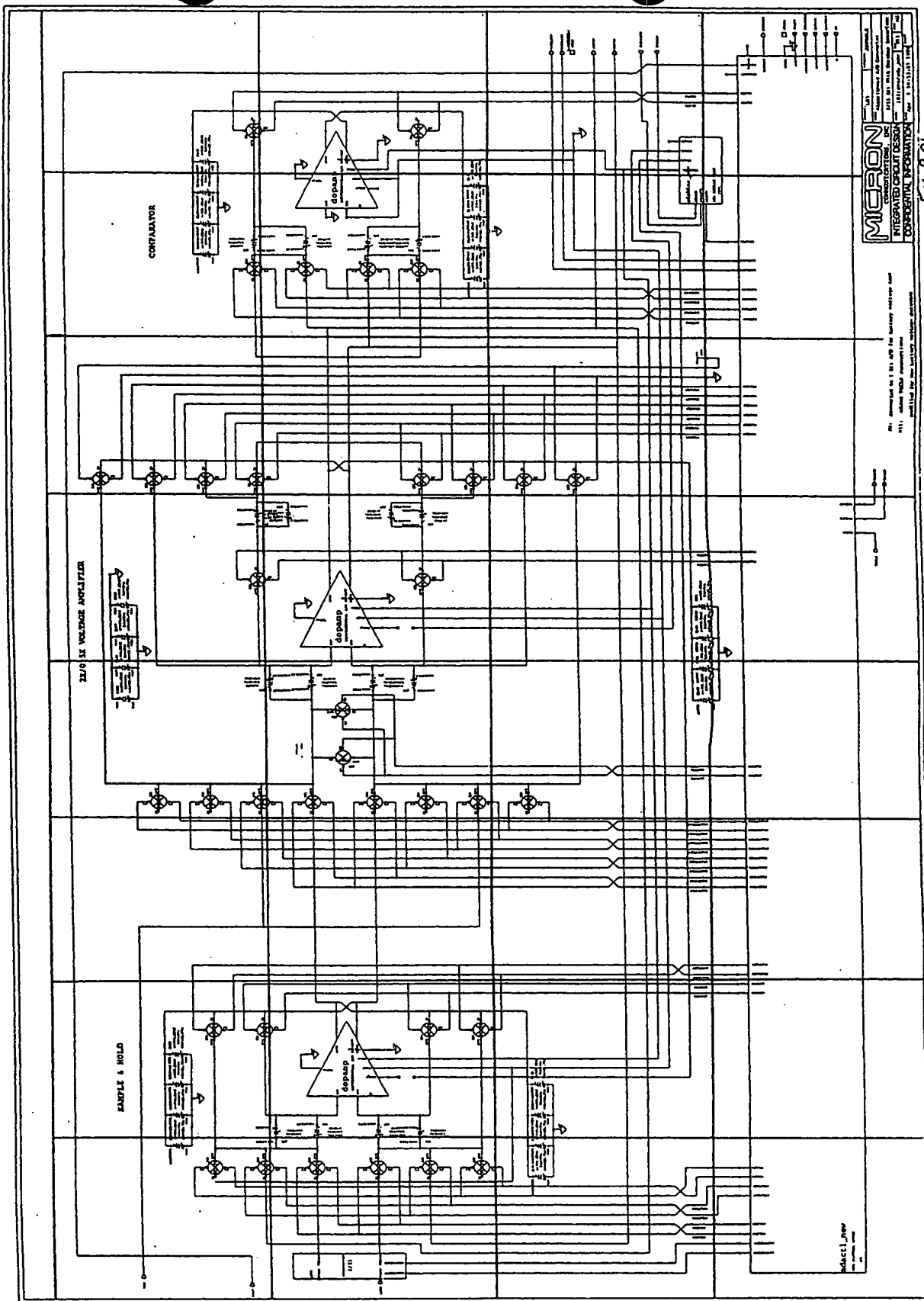
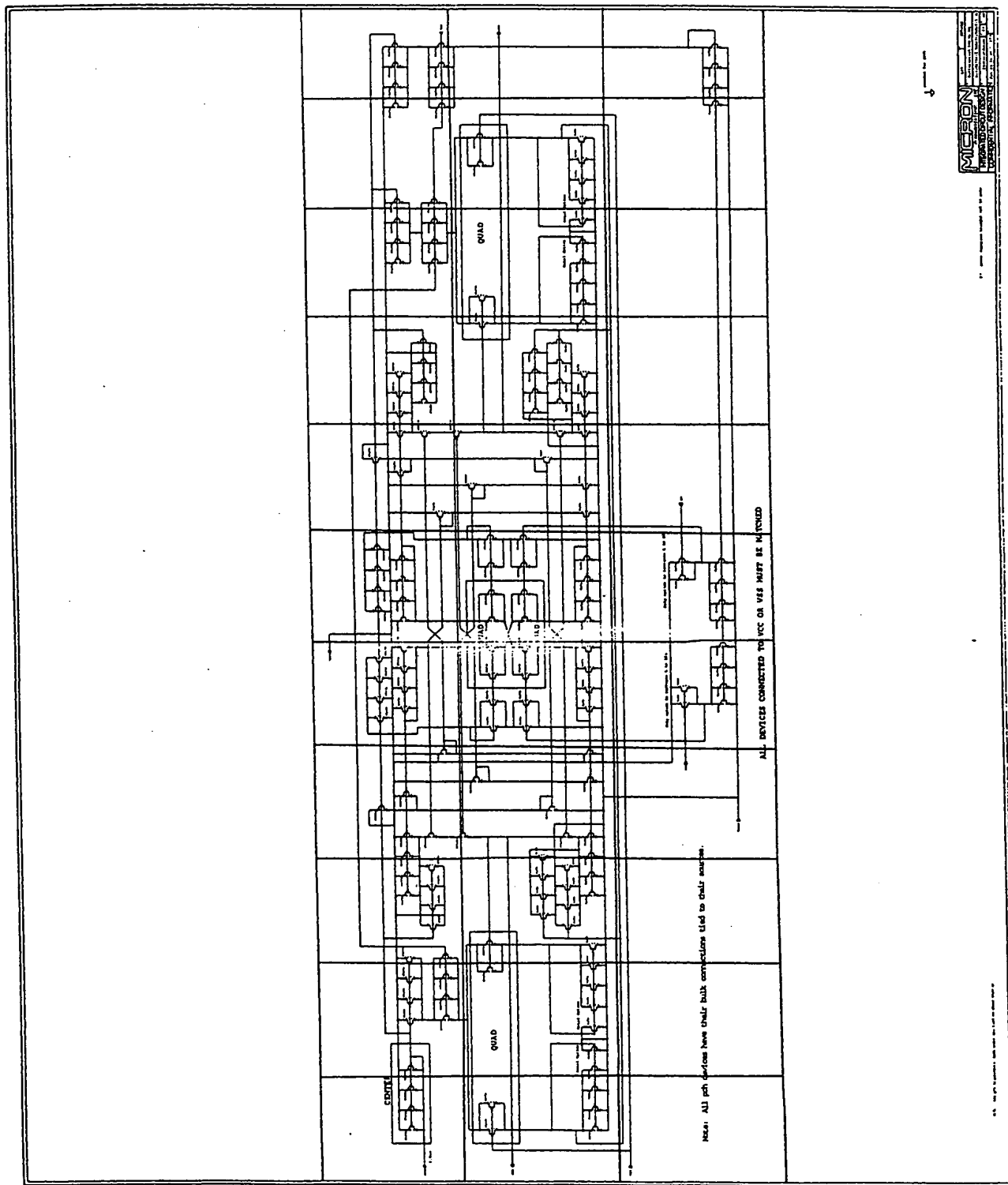


Fig. 901

|          |          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 9.0101AA | 9.0101AB | 9.0101AC | 9.0101AD | 9.0101AE | 9.0101AF | 9.0101AG | 9.0101AH | 9.0101AI | 9.0101AJ | 9.0101AK |
| 9.0101BA | 9.0101BB | 9.0101BC | 9.0101BD | 9.0101BE | 9.0101BF | 9.0101BG | 9.0101BH | 9.0101BI | 9.0101BJ | 9.0101BK |
| 9.0101CA | 9.0101CB | 9.0101CC | 9.0101CD | 9.0101CE | 9.0101CF | 9.0101CG | 9.0101CH | 9.0101CI | 9.0101CJ | 9.0101CK |

[illegible]

ALL DEVICES CONNECTED TO VCC OR VSS MUST BE MATCHED

[illegible]

Fig. 9.0101

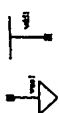
[illegible]

Fig. 9.0102

|                             |         |                            |                 |
|-----------------------------|---------|----------------------------|-----------------|
| MICRON COMMUNICATIONS, INC. |         | PROJECT: L03               | DESIGN: JOTOOLE |
|                             |         | TITLE: Analog Divide by 2  |                 |
|                             |         |                            |                 |
| NAME: 103reva/adaprescale   | REV: B1 | SIZE: A                    |                 |
| INTEGRATED CIRCUIT DESIGN   |         |                            |                 |
| CONFIDENTIAL INFORMATION    |         | DATE: May 19 16:34:53 1995 |                 |
|                             |         |                            |                 |



70663 2360

|          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 9.0103BA | 9.0103BB | 9.0103BC | 9.0103BD | 9.0103BE | 9.0103BF | 9.0103BG | 9.0103BH | 9.0103AJ | 9.0103AK | 9.0103AL | 9.0103AM | 9.0103AN | 9.0103AO | 9.0103AP |
| 9.0103CA | 9.0103CB | 9.0103CC | 9.0103CD | 9.0103CE | 9.0103CF | 9.0103CG | 9.0103CH | 9.0103CJ | 9.0103CK | 9.0103CL | 9.0103CM | 9.0103CN | 9.0103CO | 9.0103CP |
| 9.0103DA | 9.0103DB | 9.0103DC | 9.0103DD | 9.0103DE | 9.0103DF | 9.0103DG | 9.0103DH | 9.0103DJ | 9.0103DK | 9.0103DL | 9.0103DM | 9.0103DN | 9.0103DO | 9.0103DP |
| 9.0103EA | 9.0103EB | 9.0103EC | 9.0103ED | 9.0103EE | 9.0103EF | 9.0103EG | 9.0103EH | 9.0103EJ | 9.0103EK | 9.0103EL | 9.0103EM | 9.0103EN | 9.0103EO | 9.0103EP |
| 9.0103FA | 9.0103FB | 9.0103FC | 9.0103FD | 9.0103FE | 9.0103FF | 9.0103FG | 9.0103FH | 9.0103FJ | 9.0103FK | 9.0103FL | 9.0103FM | 9.0103FN | 9.0103FO | 9.0103FP |

70663 2360

FIG. 9.0103

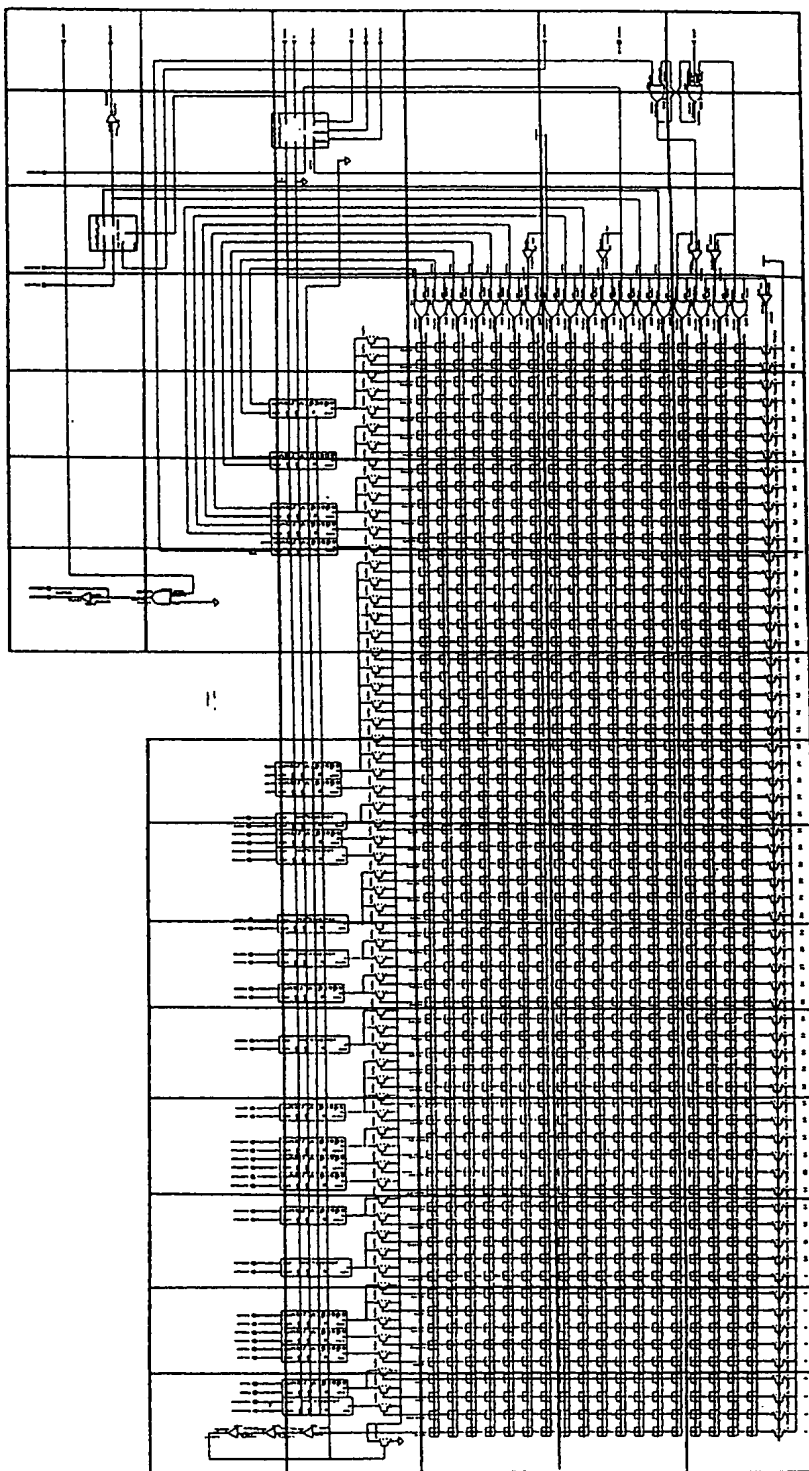


FIG. 9.0103

FIG. 9.0103  
VACUUM TUBE  
ELECTRONIC  
CIRCUIT

T0000"000000

|            |            |            |
|------------|------------|------------|
| 9.010301AA | 9.010301AB | 9.010301AC |
| 9.010301BA | 9.010301BB | 9.010301BC |
| 9.010301CA | 9.010301CB | 9.010301CC |

II II II II III II

Fig. 9.010301



COMMUNICATIONS INC.

**COMMUNICATIONS, INC.**  
**INTEGRATED CIRCUIT DESIGN**

**CONFIDENTIAL INFORMATION**

|                |             |
|----------------|-------------|
| DATE: 12/10/00 | TIME: 10:00 |
|----------------|-------------|

|     |                     |
|-----|---------------------|
| 007 | ADA Clock Generator |
|-----|---------------------|

**Now bit rate clock generator**

|                     |     |
|---------------------|-----|
| T03reva/adacgen_new | B11 |
|---------------------|-----|

Apr 3 18:12:46 1998

B8: modified for 1 Bit A/D

311: created non-overlapping bit rate clock

TABLE 9.010302

|            |            |
|------------|------------|
| 9.010302AA | 9.010302AB |
|------------|------------|

TABLE 9.010302

FIGURE 9.010302

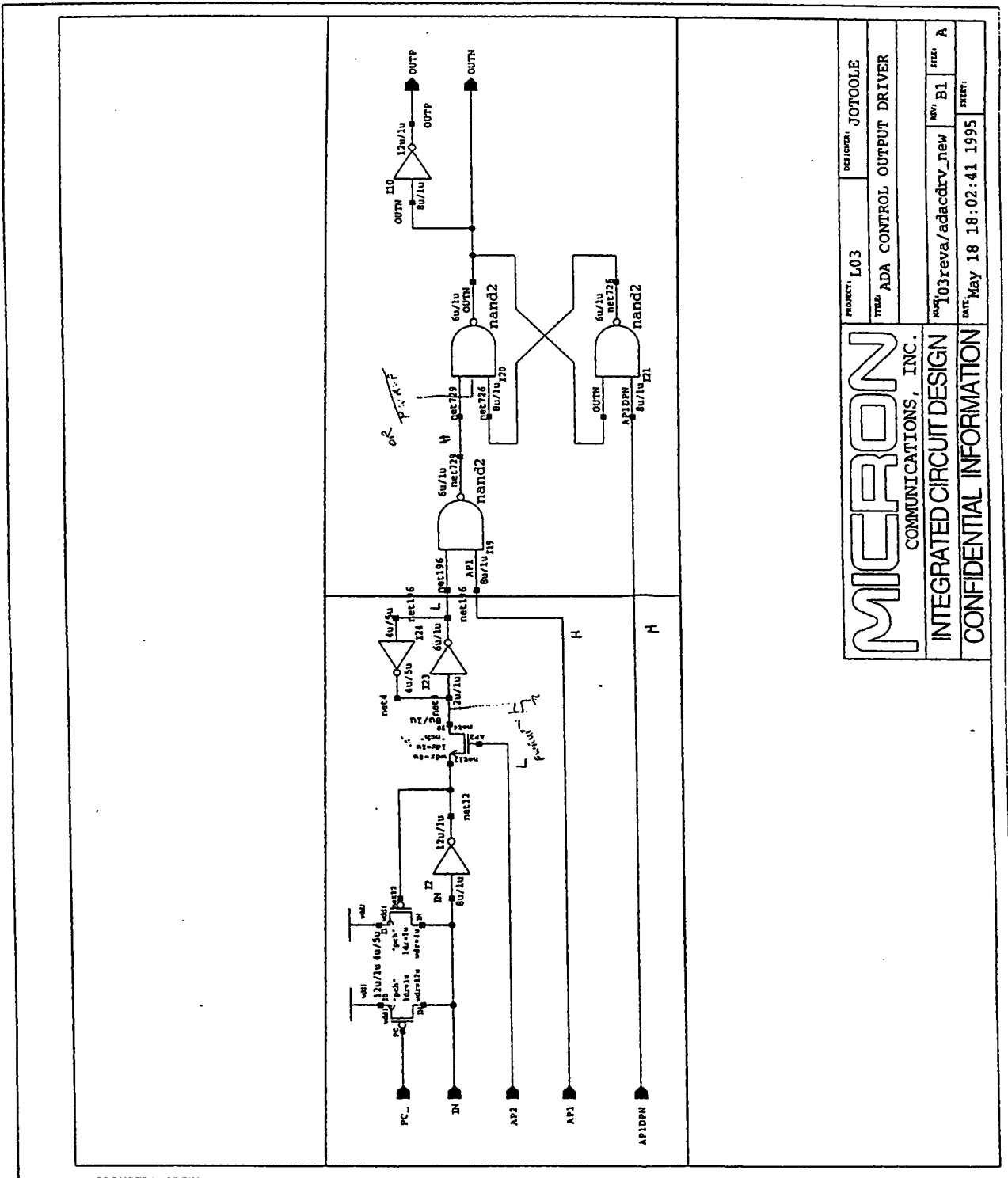


FIG. 9.010302

|                           |  |                                  |                   |
|---------------------------|--|----------------------------------|-------------------|
| MICRON                    |  | PROJECT: L03                     | DESIGNER: JOTOOLE |
| COMMUNICATIONS, INC.      |  | TITLE: ADA CONTROL OUTPUT DRIVER |                   |
| INTEGRATED CIRCUIT DESIGN |  | DATE: 103revA/adacdrv_new        | REV: B1           |
| CONFIDENTIAL INFORMATION  |  | DATE: May 18 18:02:41 1995       | SHEET: A          |

TABLE 1

MI40-030

|            |            |
|------------|------------|
| 9.010303AA | 9.010303AB |
|------------|------------|

MI40-030

# 2025

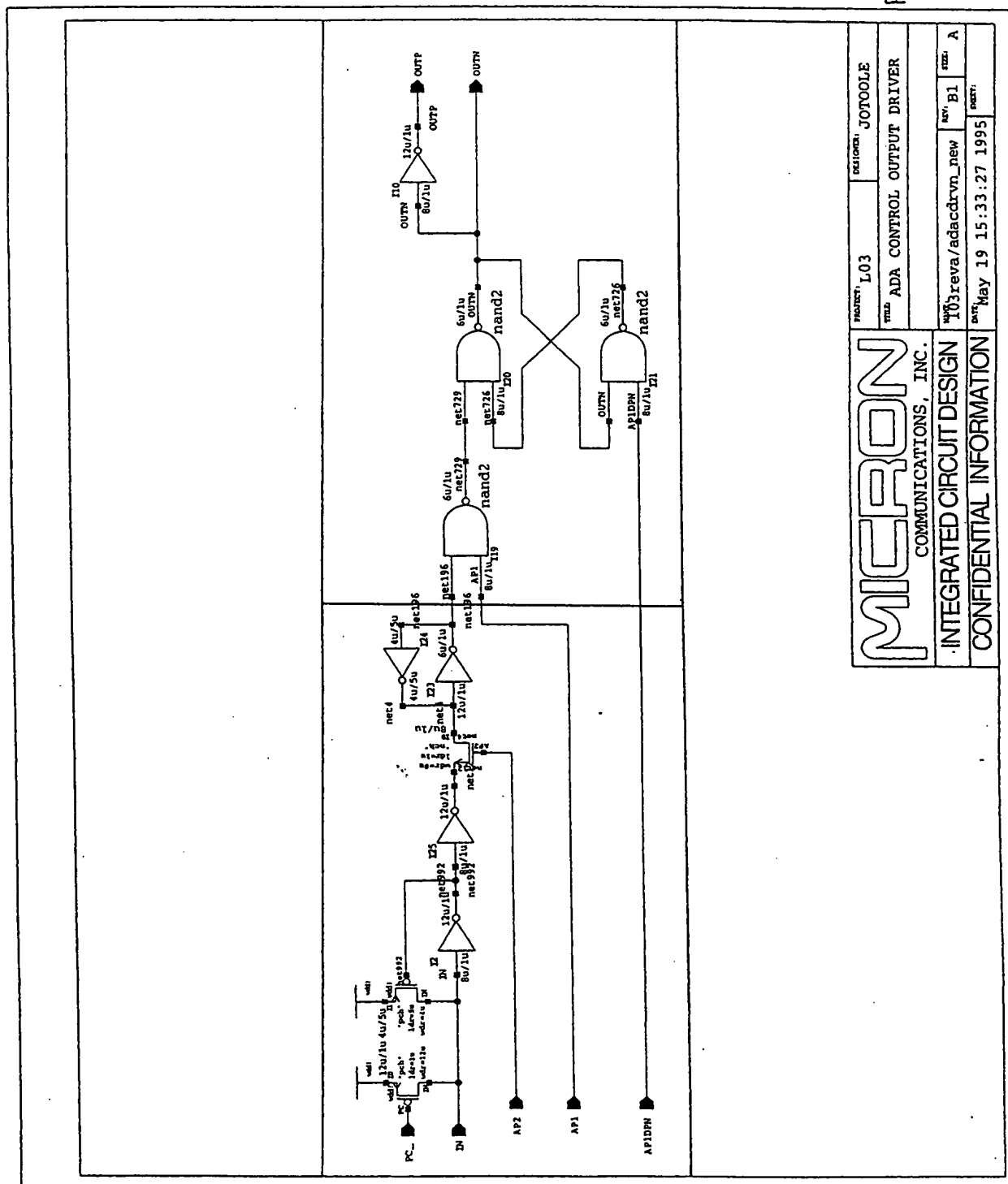


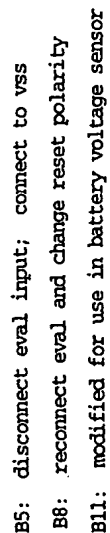
Fig. 9.010303



FOUO" CODEBOOK

|            |            |
|------------|------------|
| 9.010304AA | 9.010304AB |
| 9.010304BA | 9.010304BB |

SECRET



# NOORIC

# INTEGRATED CIRCUIT DESIGN

**CONFIDENTIAL INFORMATION**

|           |         |
|-----------|---------|
| DESIGNER: | JOTOOLE |
| PROJECT:  | L03     |

**ADA Data Latch**

|                           |          |         |
|---------------------------|----------|---------|
| NAME: 103reva/adadlat new | REV: B11 | SIZE: A |
|---------------------------|----------|---------|

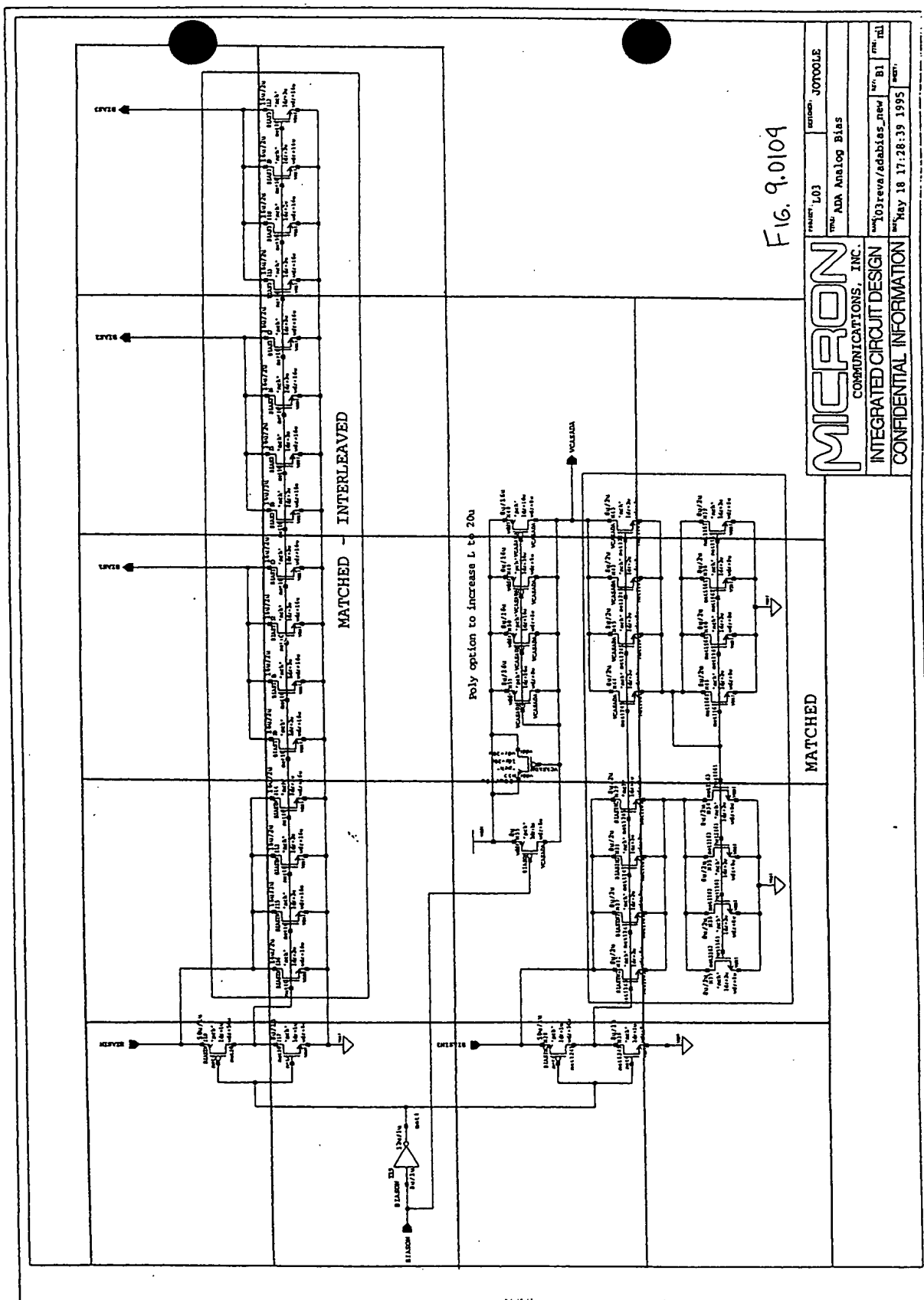
|                           |        |
|---------------------------|--------|
| DATE: Apr 8 10:39:12 1996 | SHEET: |
|---------------------------|--------|

TABLE "E30E30"

|          |          |          |          |          |
|----------|----------|----------|----------|----------|
| 9.0104AA | 9.0104AB | 9.0104AC | 9.0104AD | 9.0104AE |
| 9.0104BA | 9.0104BB | 9.0104BC | 9.0104BD | 9.0104BE |
| 9.0104CA | 9.0104CB | 9.0104CC | 9.0104CD |          |
| 9.0104DA | 9.0104DB | 9.0104DC | 9.0104DD |          |

Table E30E30

1. The first step is to identify the problem or goal. This involves understanding the current situation, identifying the problem, and setting a clear goal.



|        |        |        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 9.02AA | 9.02AB | 9.02AC | 9.02AD | 9.02AE | 9.02AF | 9.02AG | 9.02AH | 9.02AI | 9.02AJ | 9.02AK |
| 9.02BA | 9.02BB | 9.02BC | 9.02BD | 9.02BE | 9.02BF | 9.02BG | 9.02BH | 9.02BI | 9.02BJ | 9.02BK |
| 9.02CA |        | 9.02CC | 9.02CD | 9.02CE | 9.02CF | 9.02CG | 9.02CH | 9.02CI | 9.02CJ | 9.02CK |
| 9.02DA | 9.02DB | 9.02DC | 9.02DD |        | 9.02DF | 9.02DG | 9.02DH | 9.02DI | 9.02DJ | 9.02DK |

9.0226

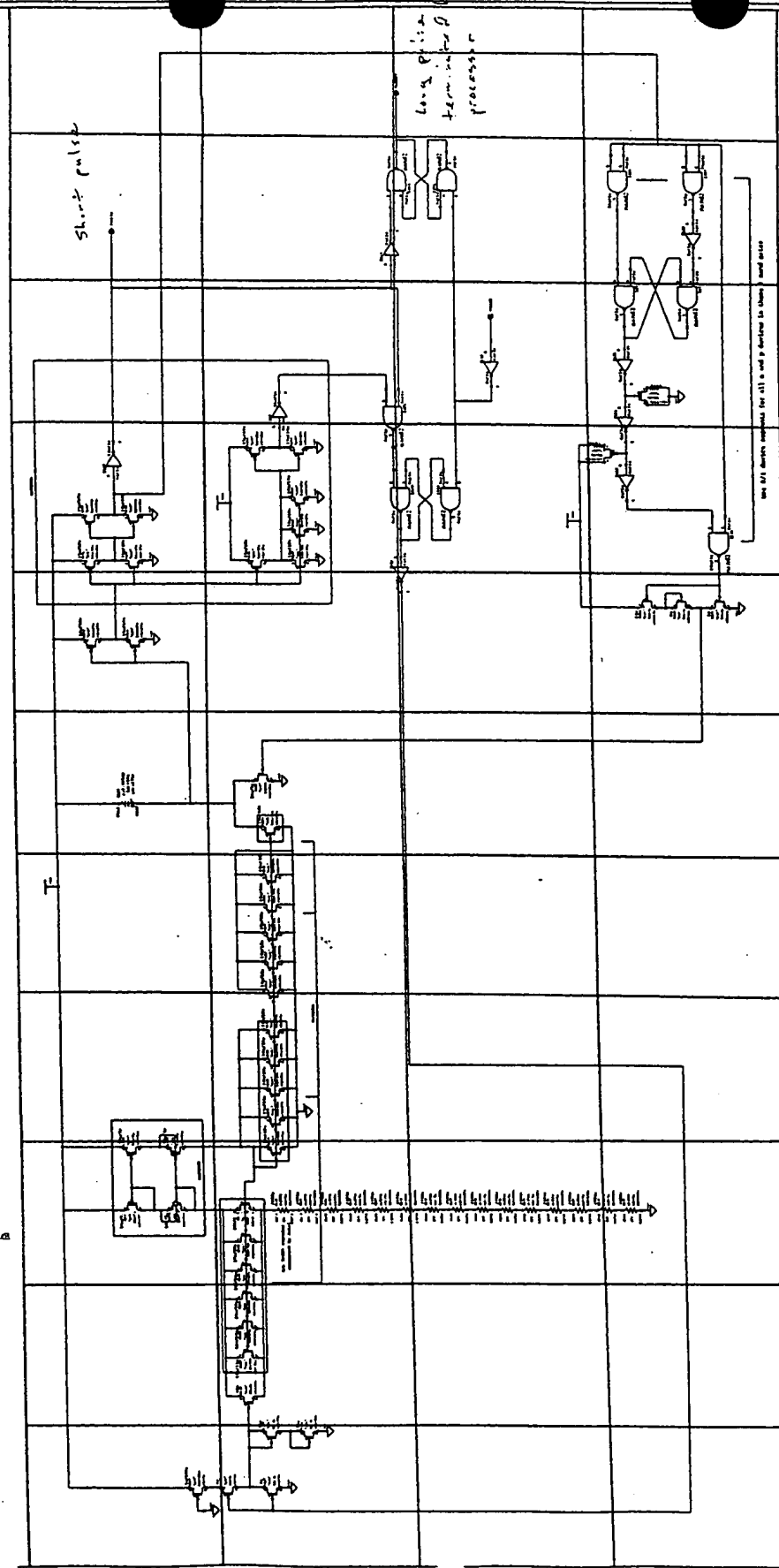


FIG. 9.02

Table 9.0300

|        |        |
|--------|--------|
| 9.03AA | 9.03AB |
| 9.03BA | 9.03BB |

MI 40 9.0300

FIGURE 9.03

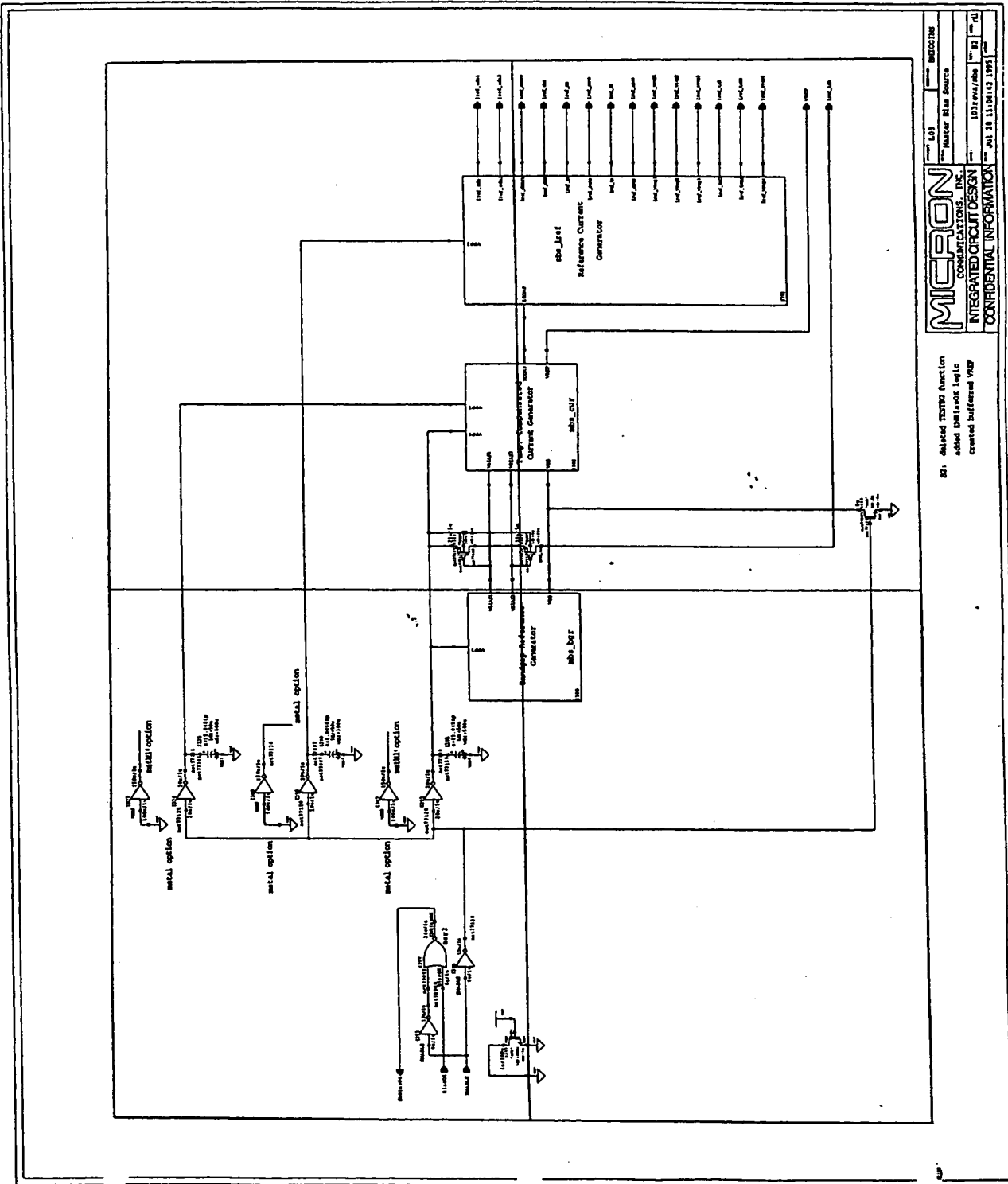


FIG. 9.03

821, deleted timing function  
added differential logic  
created buffered vref

U31  
Master Bias Source

**MICRON**  
COMMUNICATIONS, INC.  
INTEGRATED CIRCUIT DESIGN

CONFIDENTIAL INFORMATION



FOOEE" E30EE300

MI40-030

|          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 9.0301AA | 9.0301AB | 9.0301AC | 9.0301AD | 9.0301AE | 9.0301AF | 9.0301AG | 9.0301AH | 9.0301AI | 9.0301AJ |
| 9.0301BA | 9.0301BB | 9.0301BC | 9.0301BD | 9.0301BE | 9.0301BF | 9.0301BG | 9.0301BH | 9.0301BI | 9.0301BJ |
|          | 9.0301CB | 9.0301CC | 9.0301CD | 9.0301CE | 9.0301CF | 9.0301CG | 9.0301CH | 9.0301CI | 9.0301CJ |
|          | 9.0301DB | 9.0301DC | 9.0301DD | 9.0301DE | 9.0301DF | 9.0301DG | 9.0301DH | 9.0301DI | 9.0301DJ |

IL II E3 9.0301 II

TOP SECRET

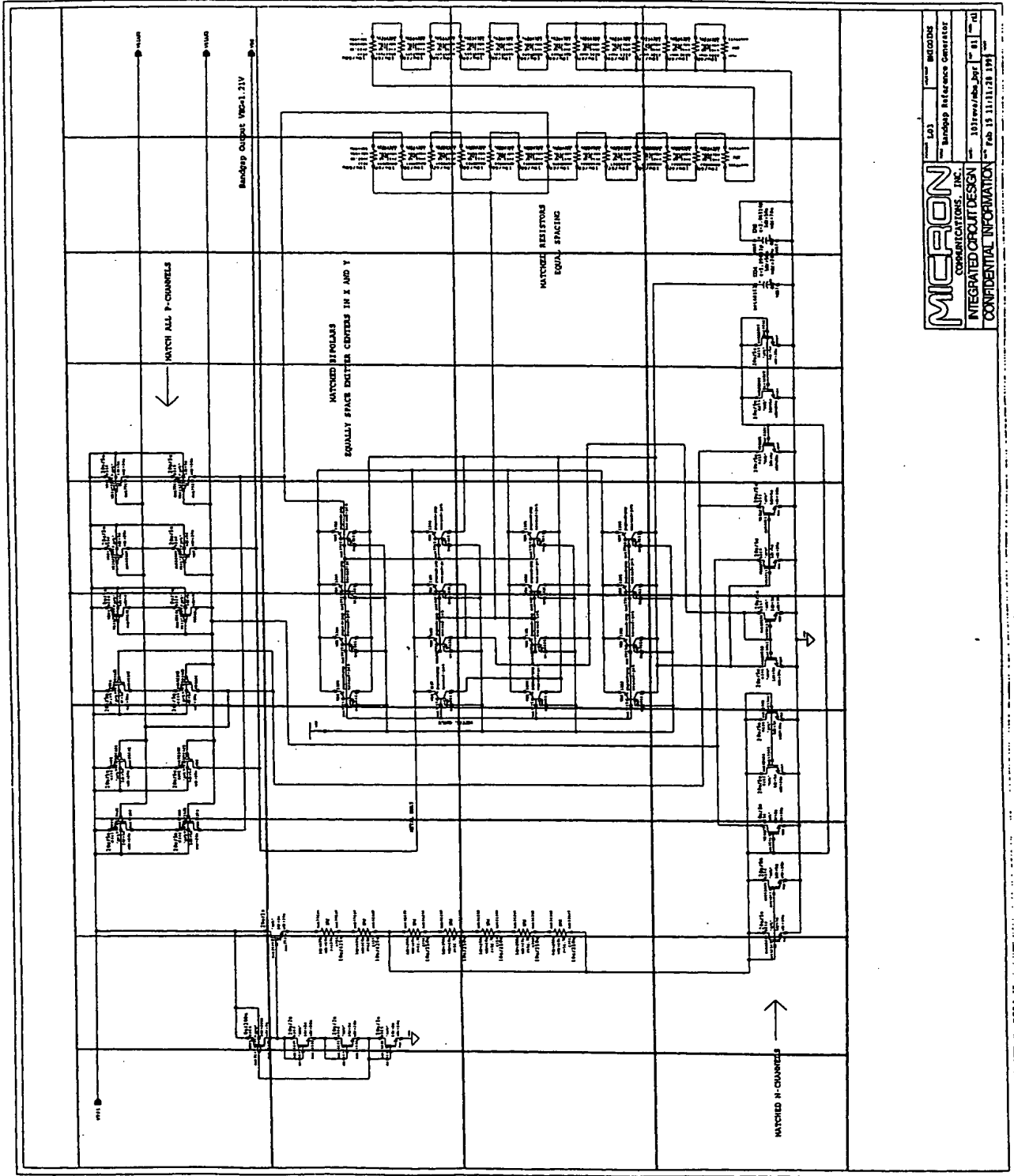
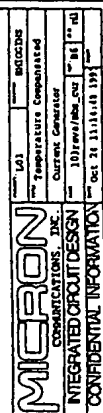


Fig. 9.0301

|                              |          |
|------------------------------|----------|
| <b>MICRON</b>                |          |
| CORPORATION                  |          |
| INTEGRATED CIRCUIT DESIGN    |          |
| CONFIDENTIAL INFORMATION     |          |
| Lot                          | 81010101 |
| Bandpass Reference Generator |          |
| 101rev/4/80                  | 81       |
| Feb 15 11:11:28 1981         |          |

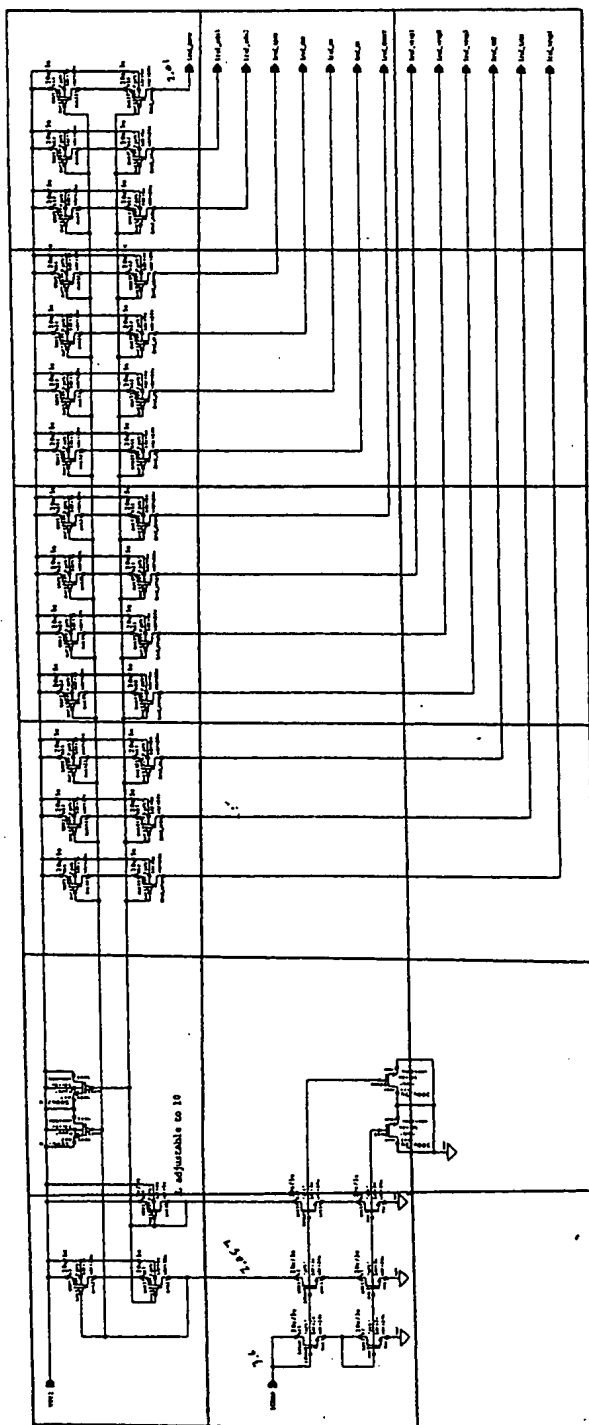
|          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 9.0302AA | 9.0302AB | 9.0302AC | 9.0302AD | 9.0302AE | 9.0302AF | 9.0302AG | 9.0302AH | 9.0302AI | 9.0302AJ |
| 9.0302BA | 9.0302BB | 9.0302BC | 9.0302BD | 9.0302BE | 9.0302BF | 9.0302BG | 9.0302BH | 9.0302BI | 9.0302BJ |
|          |          | 9.0302CC | 9.0302CD | 9.0302CE | 9.0302CF | 9.0302CG | 9.0302CH | 9.0302CI | 9.0302CJ |
|          |          |          |          |          |          |          |          | 9.0302DI |          |

FIG. 9.0302



|          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|
| 9.0303AA | 9.0303AB | 9.0303AC | 9.0303AD | 9.0303AE | 9.0303AF |
| 9.0303BA | 9.0303BB | 9.0303BC | 9.0303BD | 9.0303BE | 9.0303BF |
|          | 9.0303CB | 9.0303CC | 9.0303CD | 9.0303CE | 9.0303CF |

FIG. 9.0303



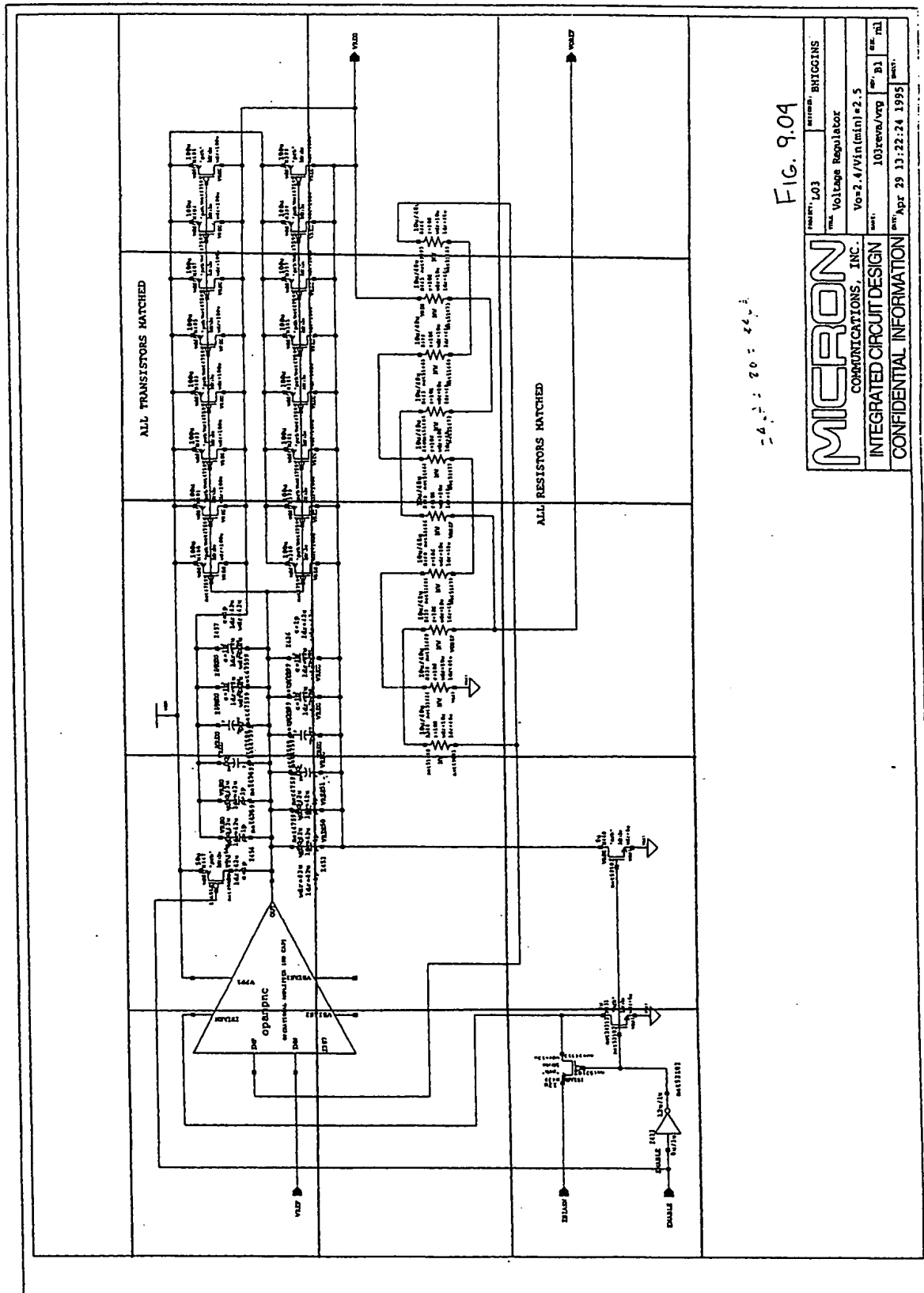
|                                  |  |                             |                  |      |                  |
|----------------------------------|--|-----------------------------|------------------|------|------------------|
| <b>MICRON</b>                    |  | DATE                        | 10/3             | BY   | MM/DD/88         |
| <b>COMMUNICATIONS, INC.</b>      |  | Reference Current Generator |                  |      |                  |
| <b>INTEGRATED CIRCUIT DESIGN</b> |  | REV                         | 10/Freeze/88     | REV  | 81 ** rd         |
| <b>CONFIDENTIAL INFORMATION</b>  |  | DATE                        | 21 11/11/21 1995 | DATE | 21 11/11/21 1995 |

TABLE 9.04

MI40-030

|        |        |        |        |        |
|--------|--------|--------|--------|--------|
| 9.04AA | 9.04AB | 9.04AC | 9.04AD | 9.04AE |
| 9.04BA | 9.04BB | 9.04BC | 9.04BD | 9.04BE |
| 9.04CA | 9.04CB | 9.04CC | 9.04CD | 9.04CE |

9.04

[illegible]



Page 2 of 2

|        |        |        |        |        |
|--------|--------|--------|--------|--------|
| 9.05AA | 9.05AB | 9.05AC | 9.05AD | 9.05AE |
| 9.05BA | 9.05BB | 9.05BC | 9.05BD | 9.05BE |
| 9.05CA | 9.05CB | 9.05CC | 9.05CD | 9.05CE |
| 9.05DA | 9.05DB | 9.05DC | 9.05DD | 9.05DE |
| 9.05EA | 9.05EB | 9.05EC | 9.05ED | 9.05EE |
| 9.05FA | 9.05FB | 9.05FC | 9.05FD | 9.05FE |

Page 2 of 2

FIG. 9.05

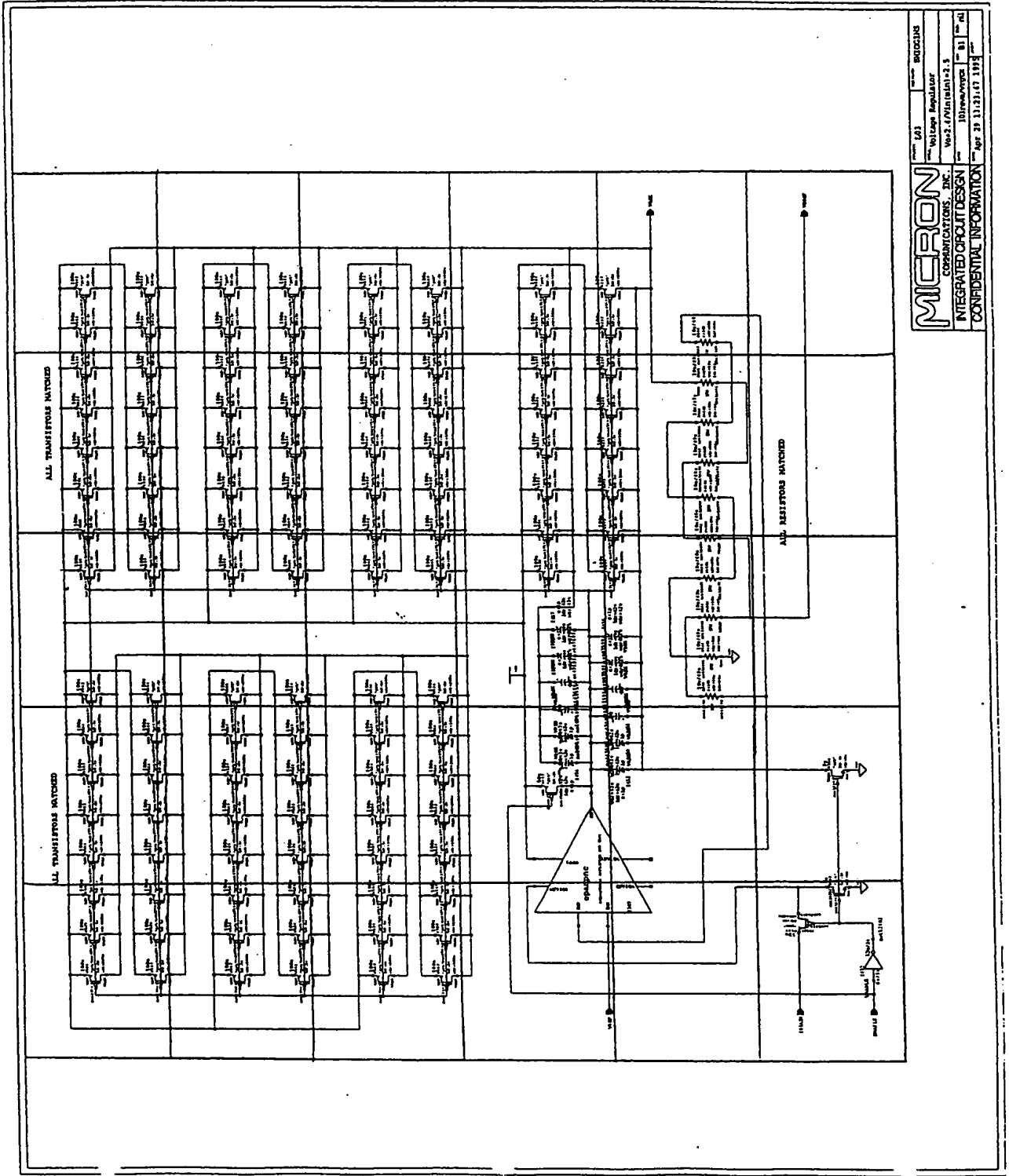


FIG. 9.05

|                           |  |                                   |        |
|---------------------------|--|-----------------------------------|--------|
| <b>MICRON</b>             |  | 001                               | 000000 |
| CORPORATION, INC.         |  | Voltage Regulator                 |        |
| INTEGRATED CIRCUIT DESIGN |  | V <sub>0</sub> = 2.4V (min) = 2.5 |        |
| CONFIDENTIAL INFORMATION  |  | 10Vrms/Vrms                       |        |
|                           |  | Apr. 20, 1973                     |        |

FORM 9-5000

MI40-030

|          |          |          |          |
|----------|----------|----------|----------|
| 9.0501AA | 9.0501AB | 9.0501AC | 9.0501AD |
| 9.0501BA | 9.0501BB | 9.0501BC | 9.0501BD |
| 9.0501CA | 9.0501CB | 9.0501CC | 9.0501CD |

II 9.0501

FORM 902360

MI40-030

|            |            |
|------------|------------|
| 9.090102AA | 9.090102AB |
| 9.090102BA | 9.090102BB |

IX 9.090102

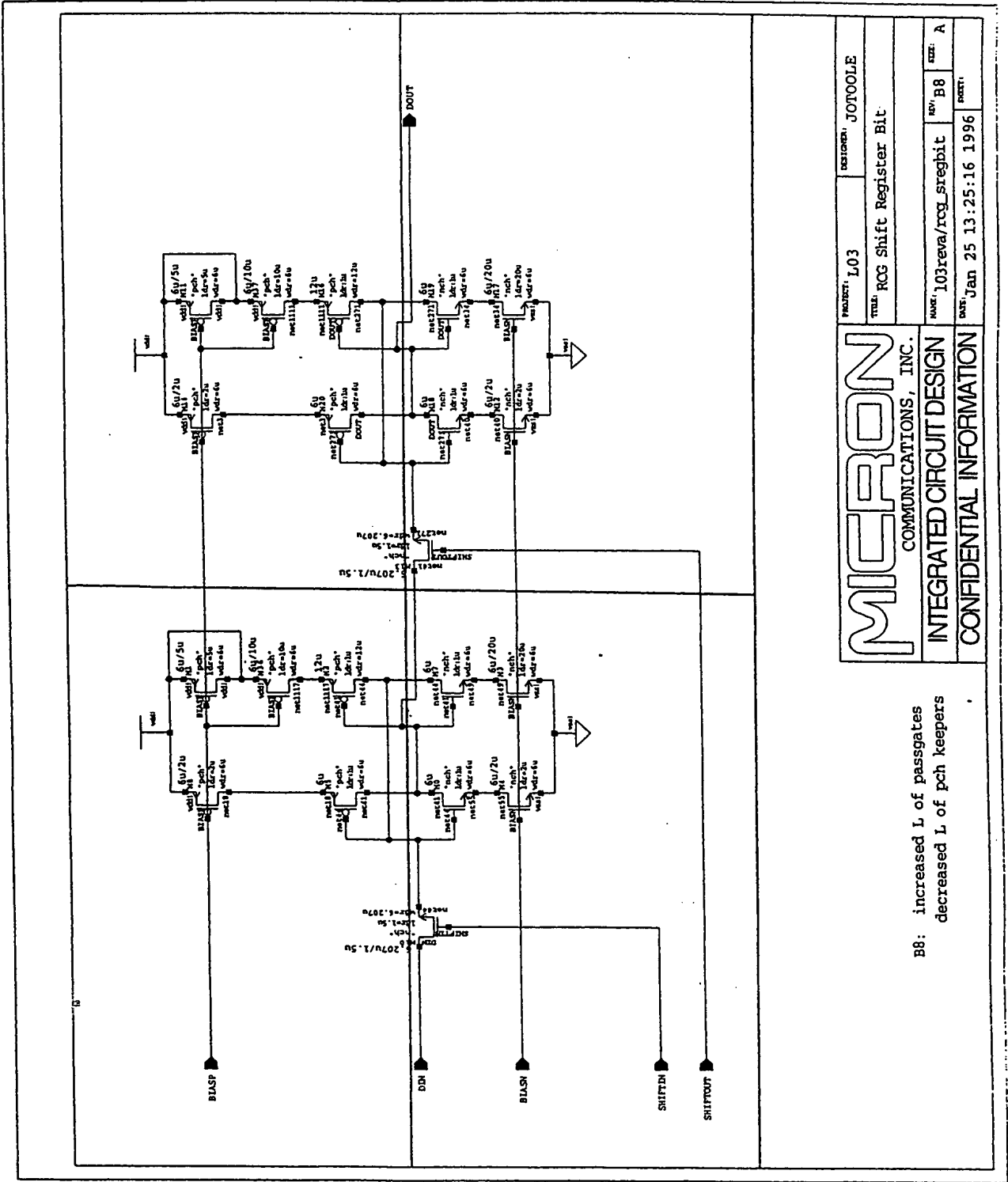


FIG. 9.090102

|                             |  |                               |                   |
|-----------------------------|--|-------------------------------|-------------------|
| MICRON COMMUNICATIONS, INC. |  | PROJECT: L03                  | DESIGNER: JOTOOLE |
| INTEGRATED CIRCUIT DESIGN   |  | TITLE: RCG Shift Register Bit |                   |
| CONFIDENTIAL INFORMATION    |  | NAME: 103reva/rcg_sregbit     | REV: B8           |
|                             |  | DATE: Jan 25 13:25:16 1996    | SIZE: A           |

B8: increased L of passgates  
decreased L of pch keepers

TABLE 10  
 10.0902

|          |          |          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 9.0902AA | 9.0902AB | 9.0902AC | 9.0902AD | 9.0902AE | 9.0902AF | 9.0902AG | 9.0902AH | 9.0902AI | 9.0902AJ | 9.0902AK | 9.0902AL |
| 9.0902BA | 9.0902BB | 9.0902BC | 9.0902BD | 9.0902BE | 9.0902BF | 9.0902BG | 9.0902BH | 9.0902BI | 9.0902BJ | 9.0902BK | 9.0902BL |
|          |          | 9.0902CC | 9.0902CD | 9.0902CE | 9.0902CF | 9.0902CG | 9.0902CH | 9.0902CI | 9.0902CJ | 9.0902CK | 9.0902CL |
|          |          | 9.0902DC | 9.0902DD | 9.0902DE | 9.0902DF |          |          |          |          |          | 9.0902DL |
| 9.0902EA | 9.0902EB | 9.0902EC | 9.0902ED | 9.0902EE | 9.0902EF | 9.0902EG | 9.0902EH | 9.0902EI | 9.0902EJ | 9.0902EK | 9.0902EL |
|          |          |          | 9.0902FD | 9.0902FE | 9.0902FF | 9.0902FG | 9.0902FH | 9.0902FI | 9.0902FJ | 9.0902FK | 9.0902FL |

10.0902

[illegible]

9.0903AA 9.0903AB 9.0903AC

|          |          |          |
|----------|----------|----------|
| 9.0903AA | 9.0903AB | 9.0903AC |
| 9.0903BA | 9.0903BB | 9.0903BC |
| 9.0903CA | 9.0903CB | 9.0903CC |

9.0903



Fig. 9.0903



INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

**B8: wired cross-couples to ground**

"0000" e 300000

|      |      |      |      |
|------|------|------|------|
| 10AA | 10AB | 10AC | 10AD |
| 10BA | 10BB | 10BC | 10BD |
| 10CA | 10CB | 10CC | 10CD |
| 10DA | 10DB | 10DC | 10DD |

II II II

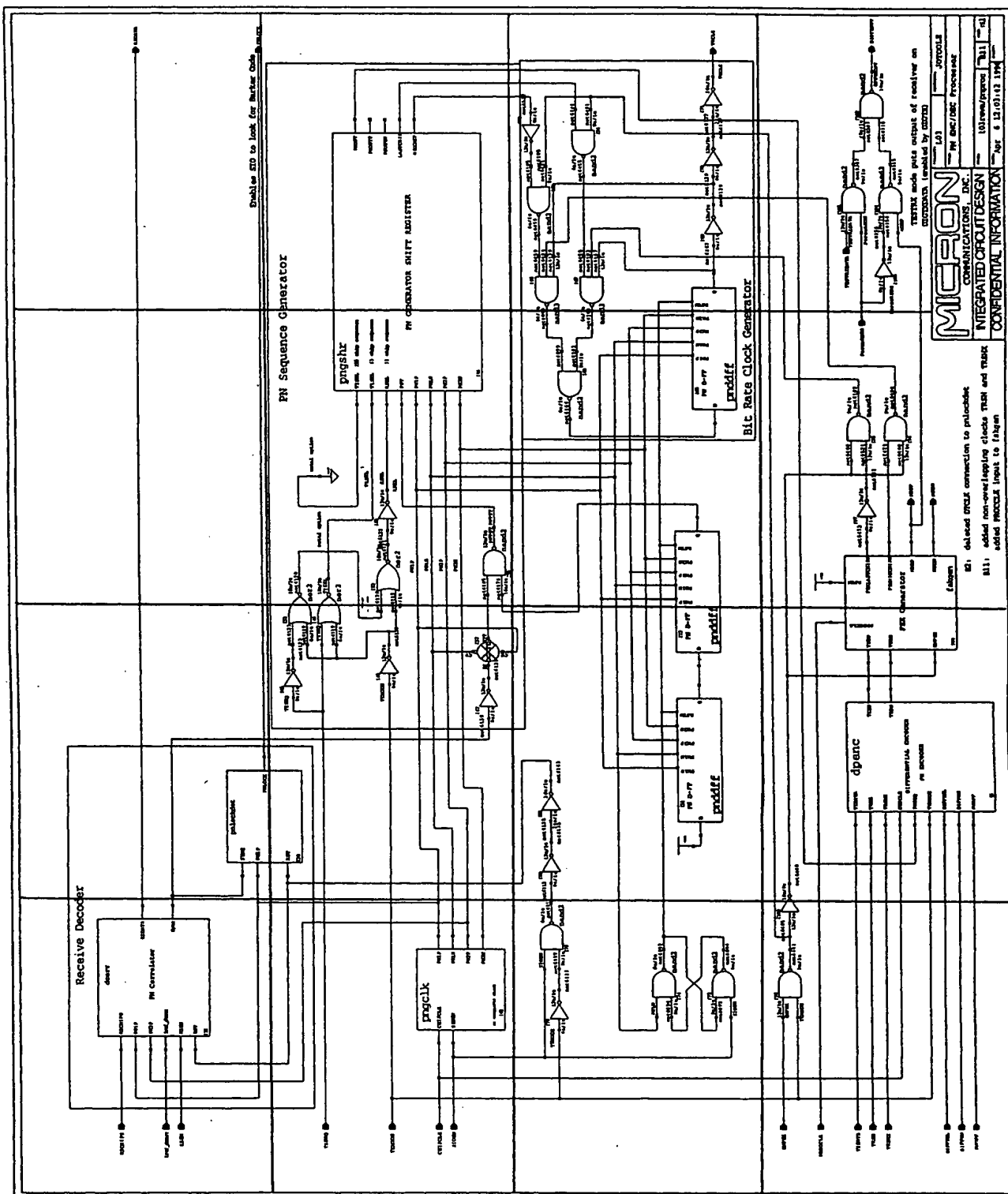


Fig. 10

TABLE "E" 300000

8

|         |         |         |         |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 10.01AA | 10.01AB | 10.01AC | 10.01AD | 10.01AE | 10.01AF | 10.01AG |         |         |         |
| 10.01BA | 10.01BB | 10.01BC | 10.01BD | 10.01BE | 10.01BF | 10.01BG | 10.01BH | 10.01BI | 10.01BJ |
| 10.01CA | 10.01CB | 10.01CC | 10.01CD | 10.01CE | 10.01CF | 10.01CG | 10.01CH | 10.01CI | 10.01CJ |
|         | 10.01DB | 10.01DC | 10.01DD | 10.01DE | 10.01DF | 10.01DG | 10.01DH | 10.01DI | 10.01DJ |

И. П. 100000

SECRET

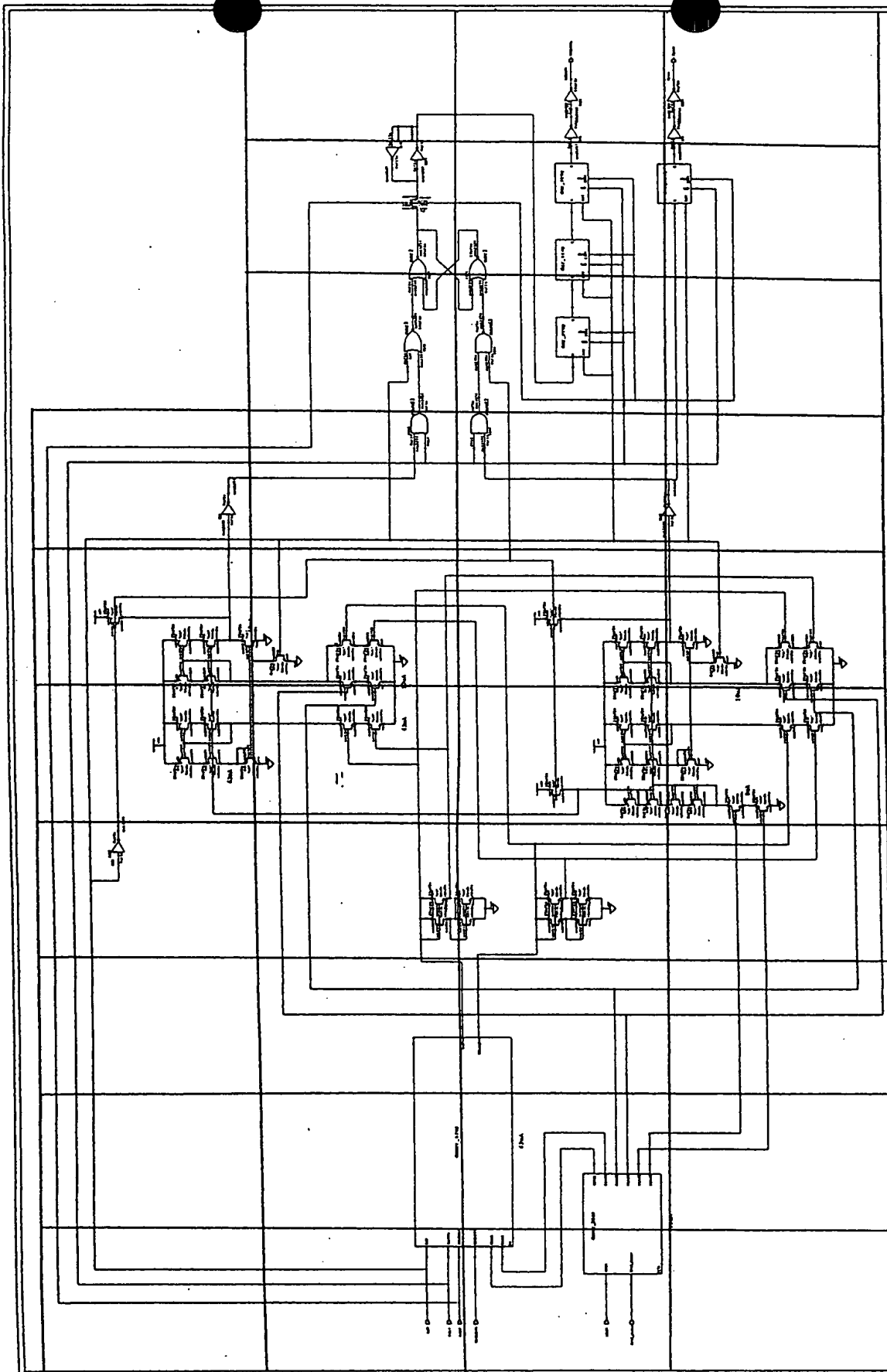


Fig. 10.01

**MICRON**  
INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION  
Rev. 1.0 (10.01.11)

**COPY TO THE DIRECTOR**

|           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 10.0101AA | 10.0101AB | 10.0101AC | 10.0101AD | 10.0101AE | 10.0101AF | 10.0101AG |
| 10.0101BA | 10.0101BB | 10.0101BC | 10.0101BD | 10.0101BE | 10.0101BF | 10.0101BG |

[illegible]

1. The first step is to identify the problem or question that needs to be addressed. This involves understanding the context and the specific requirements of the task.

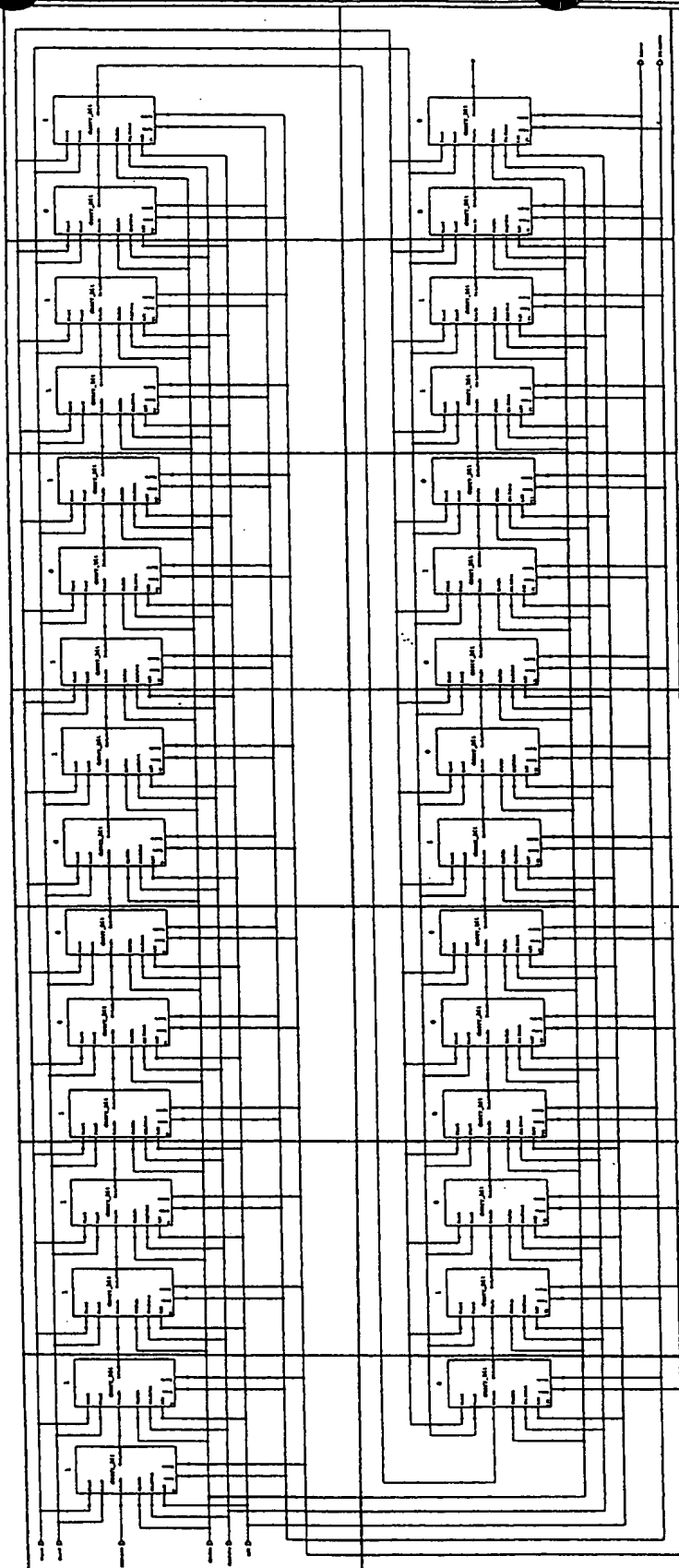


FIG. 10.0101

|                           |                        |
|---------------------------|------------------------|
| <b>MICRON</b>             |                        |
| COMMUNICATIONS, INC.      |                        |
| INTEGRATED CIRCUIT DESIGN |                        |
| CONFIDENTIAL INFORMATION  |                        |
| No.                       | 101000-0000-1/00       |
| Date                      | Aug. 6 11, 25, 89 1994 |
| Rev.                      |                        |
| Project                   | General, J100          |
| Sheet                     | (4)                    |

THE UNIVERSITY OF CHICAGO PRESS

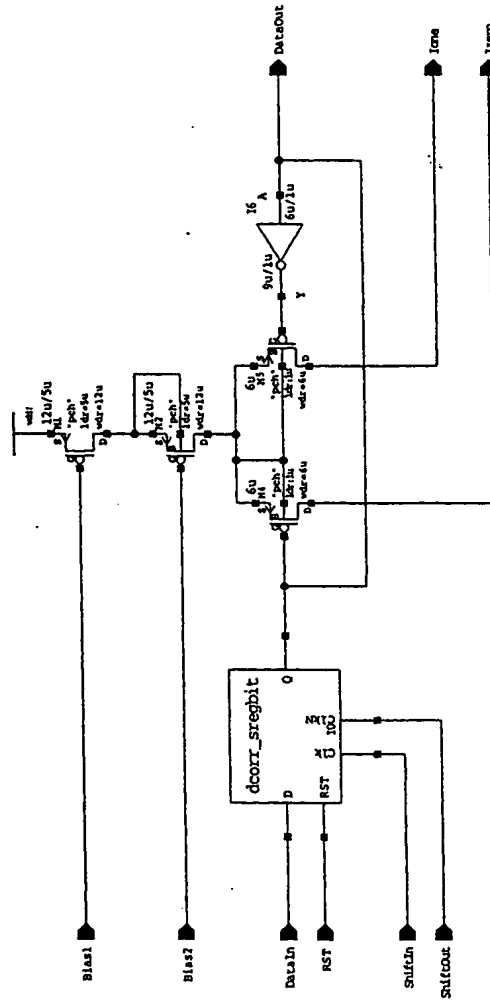


Fig. 10,010101

|                           |  |                           |  |                   |         |
|---------------------------|--|---------------------------|--|-------------------|---------|
| MICRON                    |  | PROJECT: L03              |  | DESIGNER: JOTOOLE |         |
| COMMUNICATIONS, INC.      |  | TITLE: Correlator Bit     |  |                   |         |
| INTEGRATED CIRCUIT DESIGN |  | NAME: 103reva/dcorr_bit   |  | REV: B1           | SIZE: A |
| CONFIDENTIAL INFORMATION  |  | DATE: sep 9 11:37:26 1994 |  | SHEET:            |         |



**THE** **WORLD'S** **GREATEST** **TRAVEL** **GUIDE**

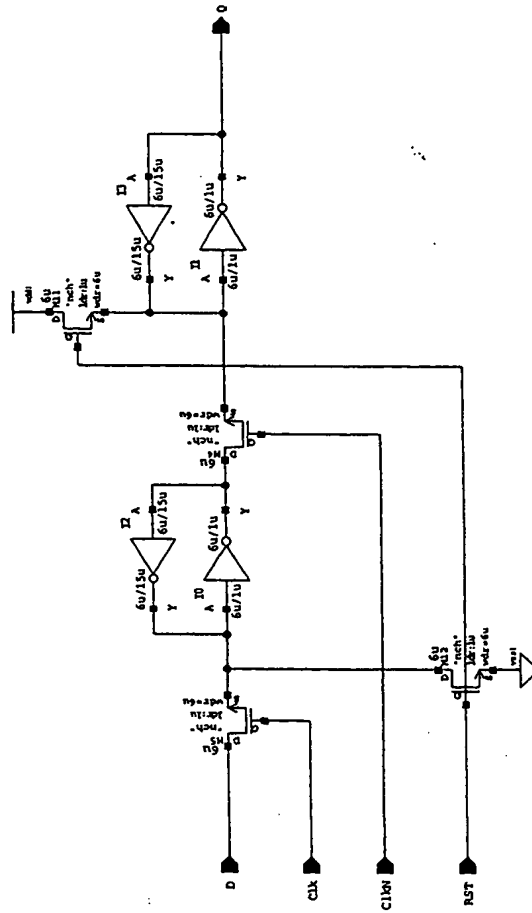

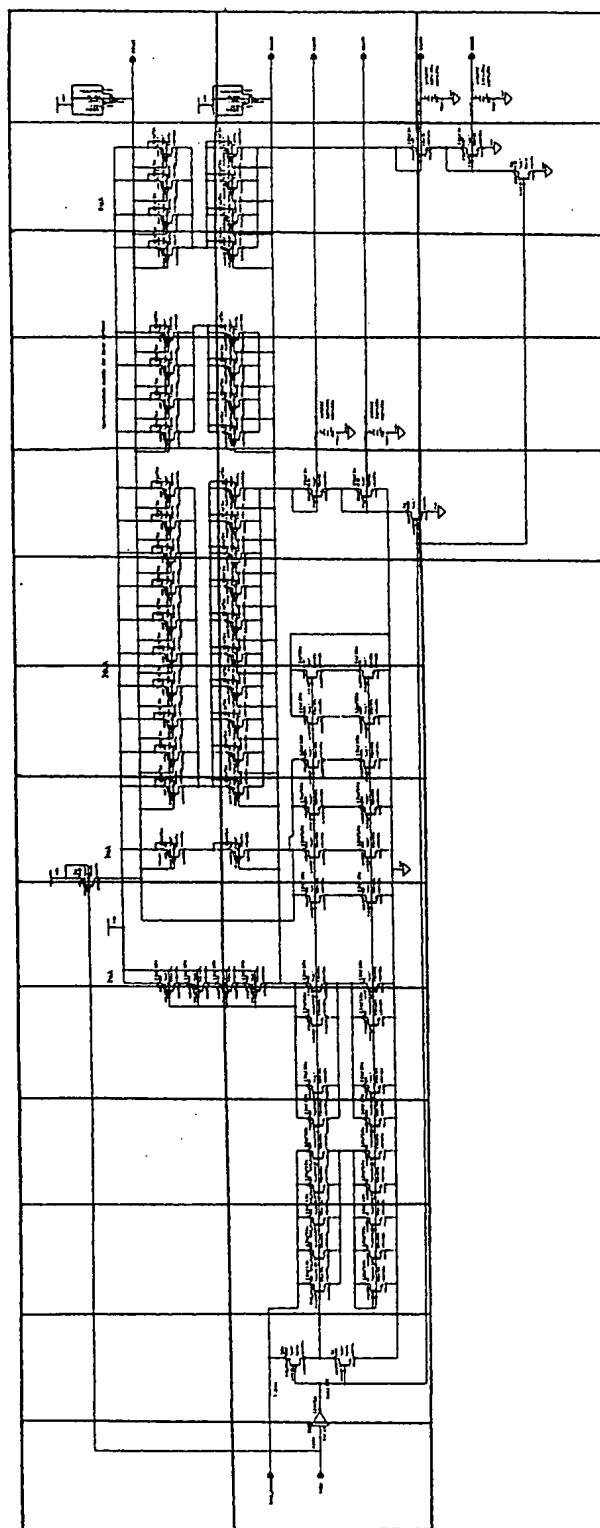


FIG. 10.01010101

|   |                              |                            |                 |
|---|------------------------------|----------------------------|-----------------|
|  |                              | PART: L03                  | DESIGN: J07001E |
| COMMUNICATIONS, INC.  |                              | TITLE: Shift Register Cell |                 |
| INTEGRATED CIRCUIT DESIGN   | PART: J03reval/dcorr_sregbit | REV: B1                    | SIZE: A         |
| CONFIDENTIAL INFORMATION  | DATE: Sep 9 14:08:50 1994    |                            |                 |

11.000000

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 10.0102AA | 10.0102AB | 10.0102AC | 10.0102AD | 10.0102AE | 10.0102AF | 10.0102AG | 10.0102AH | 10.0101AI | 10.0102AJ | 10.0102AK | 10.0102AL | 10.0102AM | 10.0102AN |
| 10.0102BA | 10.0102BB | 10.0102BC | 10.0102BD | 10.0102BE | 10.0102BF | 10.0102BG | 10.0102BH | 10.0101AI | 10.0102BJ | 10.0102BK | 10.0102BL | 10.0102BM | 10.0102BN |
|           |           |           |           |           |           |           |           |           | 10.0102CJ | 10.0102CK | 10.0102CL | 10.0102CM | 10.0102CN |



11-11-11

10.02

10.02

FIGURE 10.02

Detect preamble by counting 4 consecutive 0's

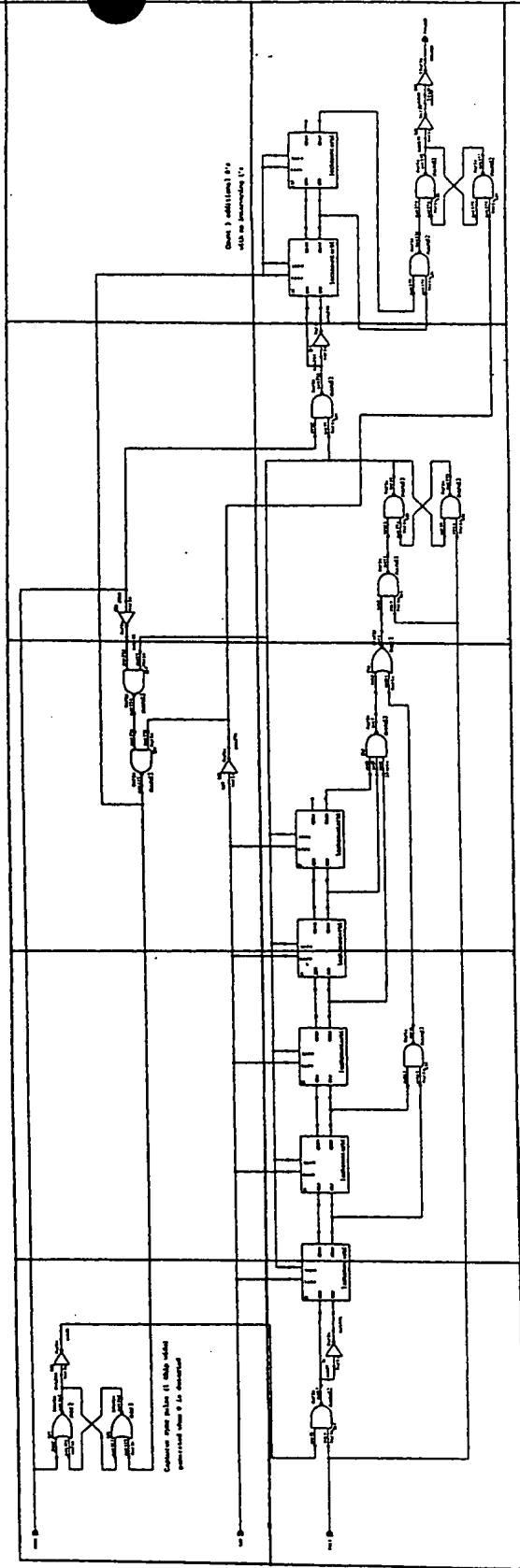


Fig. 10.02

MICRON  
TECHNOLOGIES, INC.  
INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

12: Revised the circuit to detect 4 consecutive 0's  
Change of PIN# to 1011

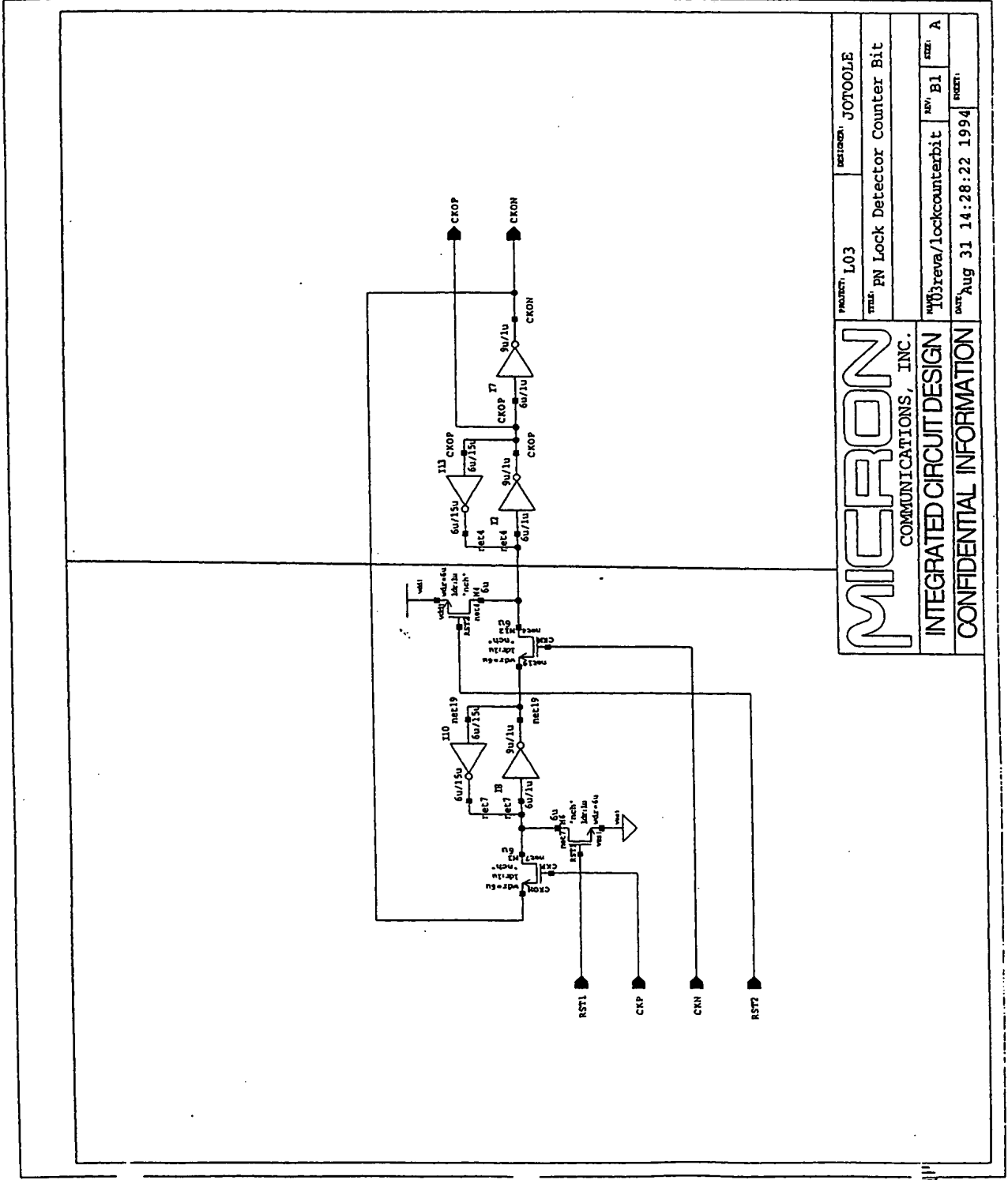
10.0201AA 10.0201AB

|  |  |
|--|--|
|  |  |
|--|--|

10.0201AB

10.0201AA

10.0201



|                           |  |                                    |                  |
|---------------------------|--|------------------------------------|------------------|
| MICRON                    |  | PROJECT L03                        | DESIGNER JOTOOLE |
| COMMUNICATIONS, INC.      |  | TITLE PN Lock Detector Counter Bit |                  |
| INTEGRATED CIRCUIT DESIGN |  | REV. B1                            | REV. A           |
| CONFIDENTIAL INFORMATION  |  | DATE Aug 31 14:28:22 1994          | DESIGNER         |

FIG. 10.0201

10.03.00

|  |  |
|--|--|
|  |  |
|--|--|

10.03AB

10.03AA

10.03



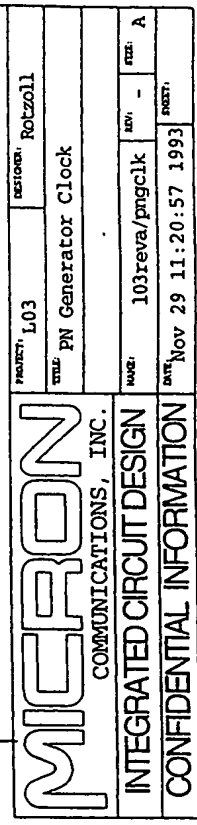


FIG. 10.03

"10.04" 23022000

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 10.04AA | 10.04AB | 10.04AC | 10.04AD | 10.04AE |
| 10.04BA | 10.04BB | 10.04BC | 10.04BD | 10.04BE |
| 10.04CA | 10.04CB | 10.04CC | 10.04CD | 10.04CE |

10.04





|           |           |
|-----------|-----------|
| 10.0402AA | 10.0402AB |
| 10.0402BA | 10.0402BB |
| 10.0402CA | 10.0402CB |

[illegible]

|                             |  |                               |                  |          |         |
|-----------------------------|--|-------------------------------|------------------|----------|---------|
| MICRON COMMUNICATIONS, INC. |  | PROJECT                       | L03              | REVISION | potcoll |
| INTEGRATED CIRCUIT DESIGN   |  | TITLE PN Gen Shift Reg Summer |                  |          |         |
| CONFIDENTIAL INFORMATION    |  | DATE                          | 103.reva(pngssum | REV      | FILE    |
|                             |  | Nov 20 21:23:00 1993          |                  | 001      | ml      |

三



THE JOURNAL OF THE  
ROYAL ANTHROPOLOGICAL INSTITUTE  
OF GREAT BRITAIN AND IRELAND  
PUBLISHED BY THE  
CAMBRIDGE UNIVERSITY PRESS

|         |         |         |         |         |         |         |         |         |         |         |  |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| 10.06AA | 10.06AB | 10.06AC | 10.06AD |         |         |         |         |         |         |         |  |
| 10.06BA | 10.06BB | 10.06BC | 10.06BD | 10.06BE | 10.06BF | 10.06BG | 10.06BH | 10.06BI | 10.06BJ | 10.06BK |  |
| 10.06CA | 10.06CB | 10.06CC | 10.06CD | 10.06CE | 10.06CF | 10.06CG | 10.06CH | 10.06CI | 10.06CJ | 10.06CK |  |
| 10.06DA | 10.06DB | 10.06DC | 10.06DD | 10.06DE | 10.06DF | 10.06DG | 10.06DH |         |         |         |  |

10.06 11.07



100220 "23022500

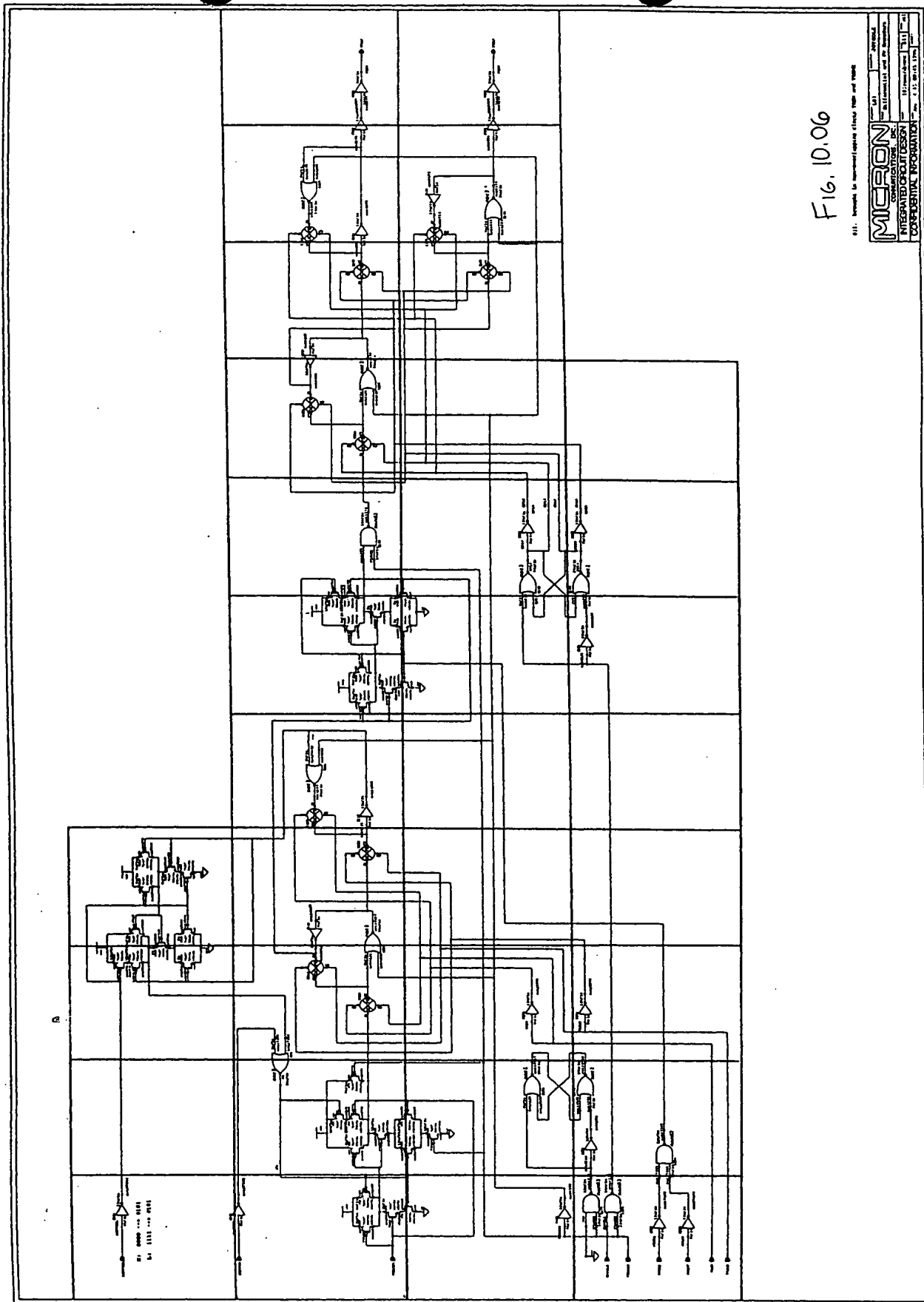


Fig. 10.06

011. Network to implement Figure 10.06 and 10.07

|                           |                   |
|---------------------------|-------------------|
| MICRON                    |                   |
| INTEGRATED CIRCUIT DESIGN |                   |
| DATE                      | 10/10/66          |
| DESIGNED BY               | J. L. B. 10/10/66 |
| CHECKED BY                | J. L. B. 10/10/66 |
| APPROVED BY               | J. L. B. 10/10/66 |
| CONFIDENTIAL INFORMATION  |                   |

|         |         |         |         |
|---------|---------|---------|---------|
| 10.07AA | 10.07AB | 10.07AC | 10.07AD |
| 10.07BA | 10.07BB | 10.07BC | 10.07BD |
| 10.07CA | 10.07CB | 10.07CC | 10.07CD |

[illegible]

Fig. 10.07

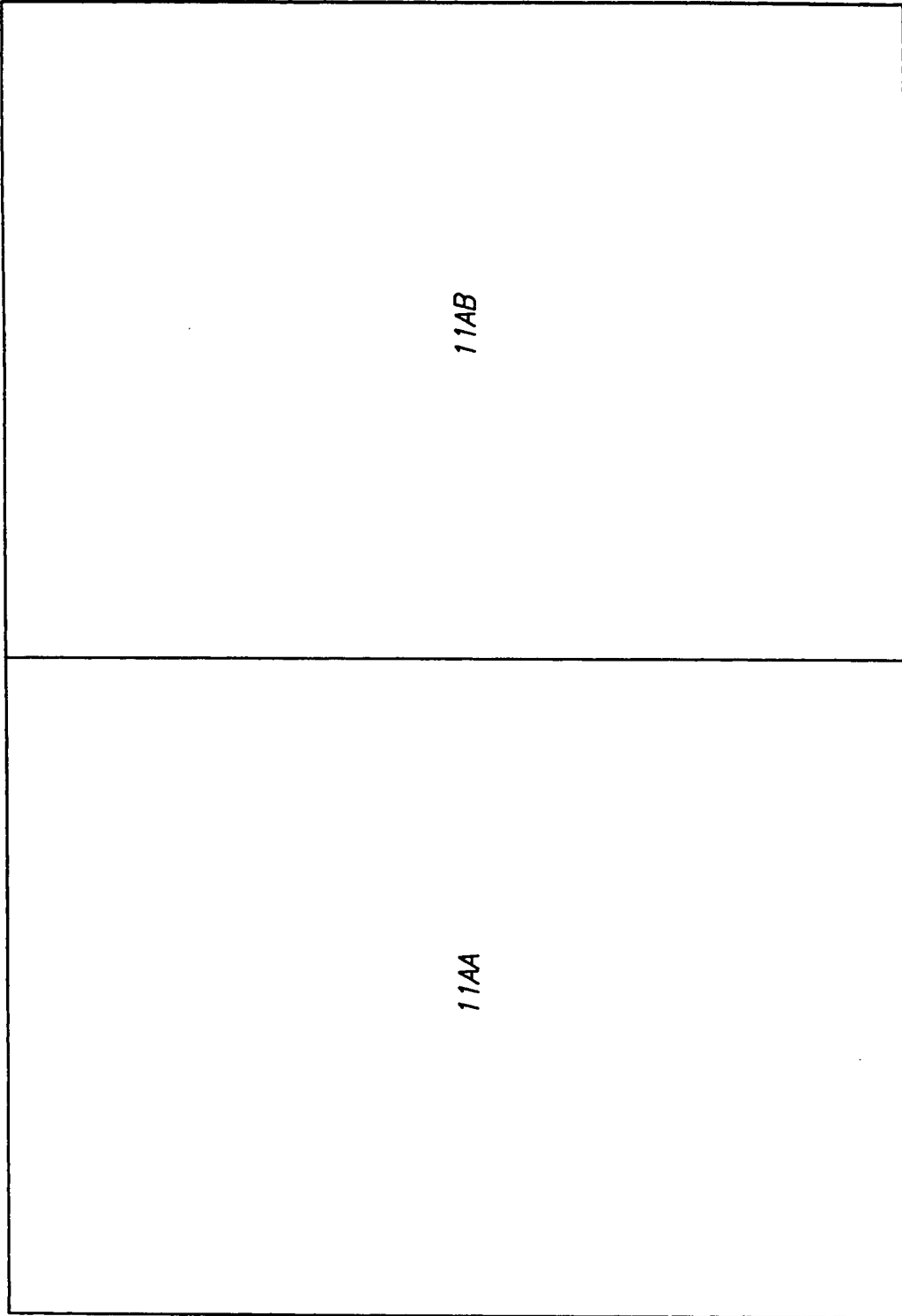
|           |           |
|-----------|-----------|
| 10.0701AA | 10.0701AB |
|-----------|-----------|

**10.0701AA**

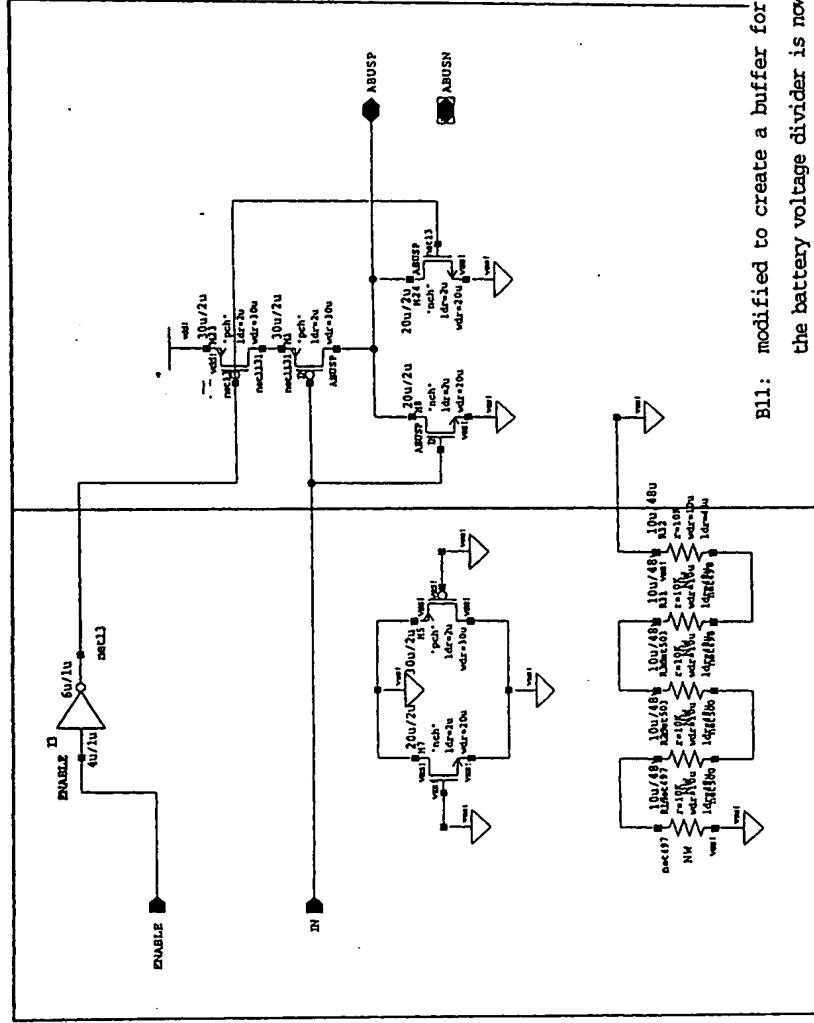
[illegible]



"P0000" 23000000



11 11



B11: modified to create a buffer for the opamp output  
the battery voltage divider is now part of tsn

|                          |                           |          |         |
|--------------------------|---------------------------|----------|---------|
| PROJECT                  | L03                       | DESIGNER | JOTOOLE |
| TITLE                    | Battery Analog I/O Buffer |          |         |
| NAME                     | 103reva/batalg            | REV      | B11     |
| DATE                     | Apr 8 10:19:56 1996       | SIZE     | A       |
| CONFIDENTIAL INFORMATION |                           |          |         |

**MICRON**  
COMMUNICATIONS, INC.

INTEGRATED CIRCUIT DESIGN

Fig. 11

100-100000-100000

|      |      |
|------|------|
| 12AA | 12AB |
|------|------|

100000



**THE NEW YORK PUBLIC LIBRARY**

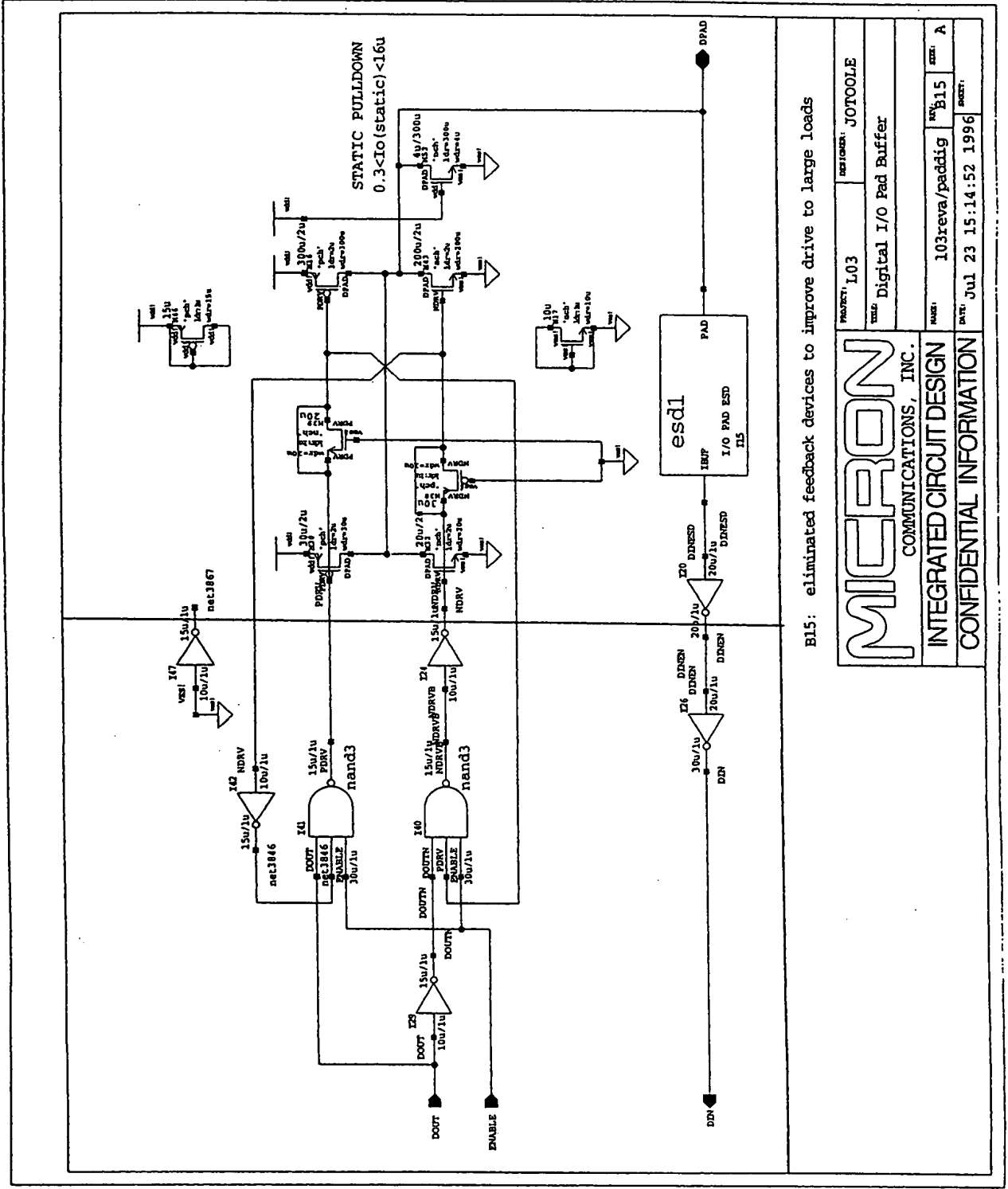
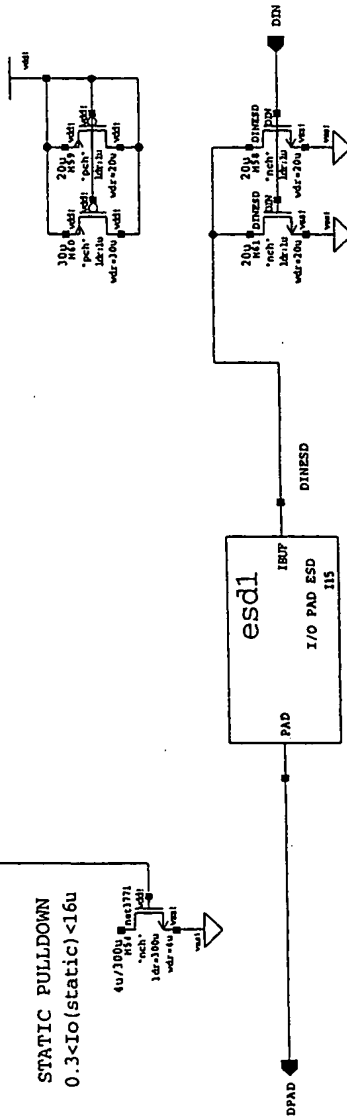


Fig. 12AA-AB



**STATIC PULLDOWN**

$$0.3 < I_o(\text{static}) < 16\mu$$


**victron**  
COMMUNICATIONS, INC.

|               |                   |
|---------------|-------------------|
| PROJECT: 1.03 | DESIGNER: JOTOOLE |
|---------------|-------------------|

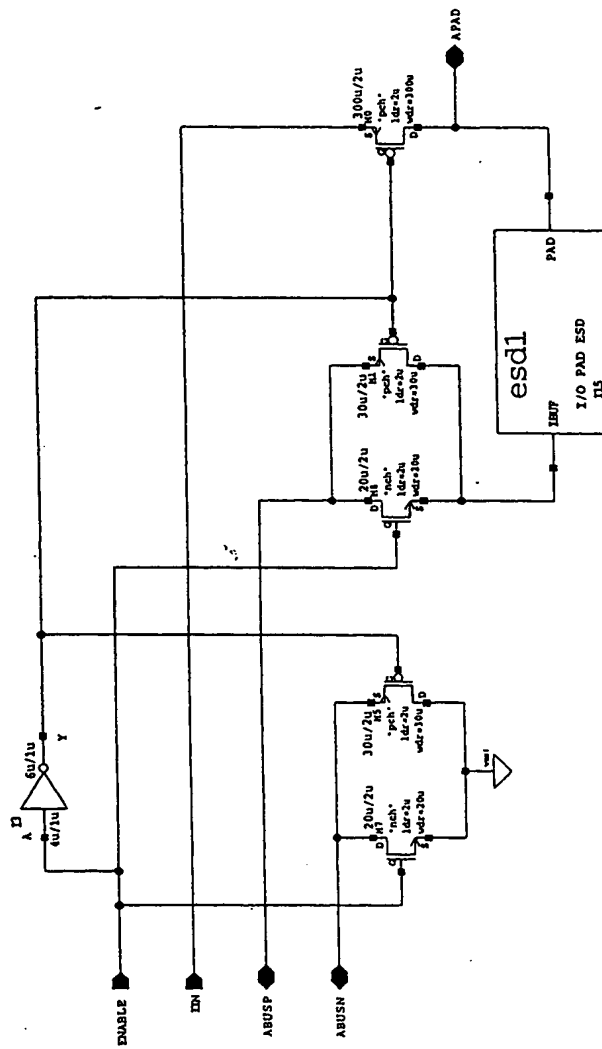
**Digital Input Pad Buffer**

|       |                   |      |     |       |   |
|-------|-------------------|------|-----|-------|---|
| NAME: | 103reva/paddigin2 | REV: | 813 | SIZE: | A |
|-------|-------------------|------|-----|-------|---|

DATE: 24 10 20 20 1006 SHEET: 1

B13: new cell for WAKEUP\* output

Fig 13.5



|                           |  |                              |                   |
|---------------------------|--|------------------------------|-------------------|
| MICRON                    |  | PROJECT: L03                 | DESIGNED: Rotzoll |
| COMMUNICATIONS, INC.      |  | TITLE: Analog I/O Pad Buffer |                   |
| INTEGRATED CIRCUIT DESIGN |  | NAME: 103reva/padalg         | REV: -            |
| CONFIDENTIAL INFORMATION  |  | DATE: Dec 12 21:55:41 1993   | DESIGN: A         |

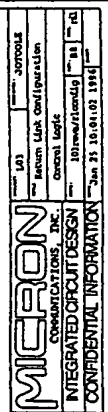
FIG. 19

[illegible]

|      |      |      |      |  |
|------|------|------|------|--|
| 15AA | 15AB | 15AC | 15AD |  |
|      | 15BA | 15BB | 15BC |  |

51 611

516.15



$$\frac{16}{17}$$

Fig. 16





|         |         |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 16.01AA | 16.01AB | 16.01AC | 16.01AD | 16.01AE | 16.01AF | 16.01AG |         |
| 16.01BA | 16.01BB | 16.01BC | 16.01BD | 16.01BE | 16.01BF | 16.01BG | 16.01BH |
| 16.01CA | 16.01CB | 16.01CC | 16.01CD | 16.01CE | 16.01CF | 16.01CG | 16.01CH |
| 16.01DA | 16.01DB | 16.01DC | 16.01DD | 16.01DE | 16.01DF | 16.01DG | 16.01DH |
|         |         |         |         |         |         |         | 16.01DI |
|         |         |         |         |         |         |         | 16.01CI |
|         |         |         |         |         |         |         | 16.01DI |

II II II II II II II II

16.01AA 16.01AB 16.01AC 16.01AD 16.01AE 16.01AF 16.01AG

FIG. 16.01

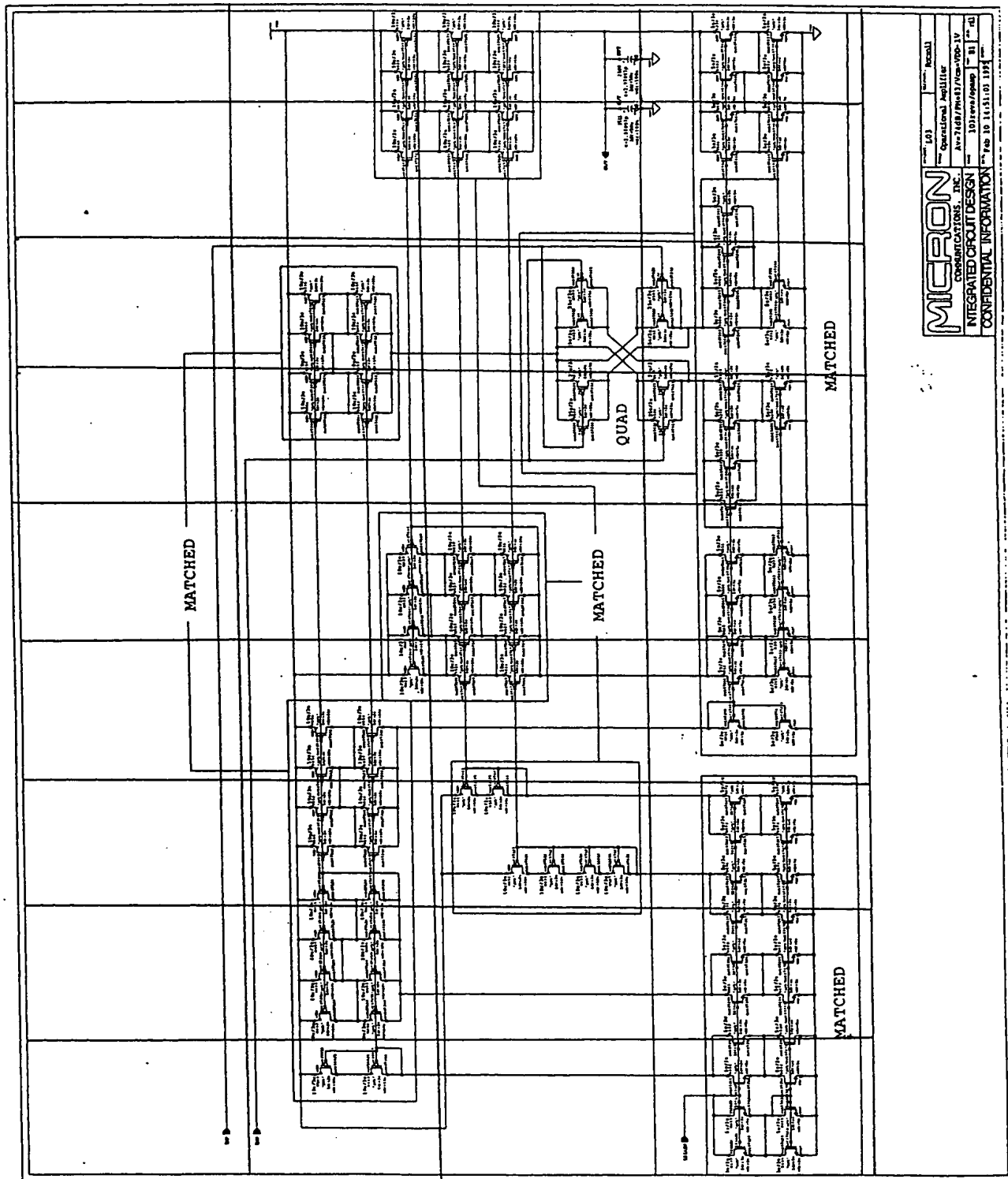


FIG. 16.01

Page 2 of 2

|      |      |
|------|------|
| 17AB | 17BB |
| 17AA | 17BA |

II II



|      |      |
|------|------|
| 18AA | 18AB |
|------|------|

18AA

$$\frac{\pi \pi}{\pi \pi}$$

FIG. 18

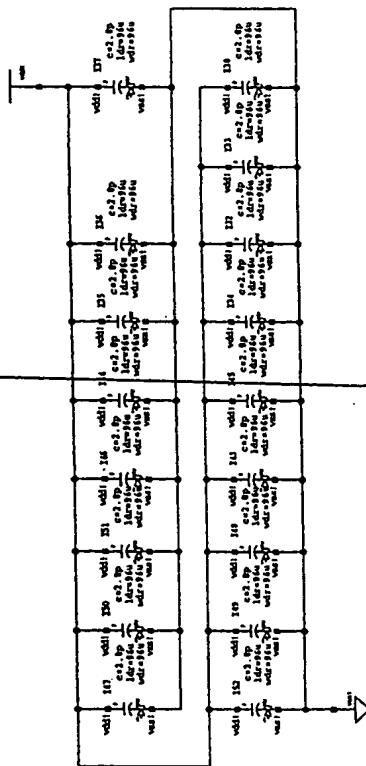


FIG. 18

|                             |  |                   |     |
|-----------------------------|--|-------------------|-----|
| PART: 103                   |  | MATERIAL: J0700LE |     |
| TYPE: Chip Bypass Capacitor |  |                   |     |
| CT=PF                       |  |                   |     |
| 103reva/bypcap3             |  | B2                | rdl |
| DATE: Jul 28 17:43:25 1995  |  |                   |     |

B2: deleted one cap

MICRON

COMMUNICATIONS, INC.

INTEGRATED CIRCUIT DESIGN

CONFIDENTIAL INFORMATION

|      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|
| 19AA | 19AB | 19AC | 19AD | 19AE | 19AF | 19AG | 19AH | 19AI | 19AJ | 19AK |
| 19BA | 19BB | 19BC | 19BD | 19BE | 19BF | 19BG | 19BH | 19BI | 19BJ | 19BK |
| 19CA | 19CB | 19CC | 19CD | 19CE | 19CF | 19CG | 19CH | 19CI | 19CJ | 19CK |
| 19DA | 19DB | 19DC | 19DD | 19DE | 19DF | 19DG | 19DH | 19DI | 19DJ | 19DK |
| 19EA | 19EB | 19EC | 19ED | 19EE | 19EF | 19EG | 19EH | 19EI | 19EJ | 19EK |

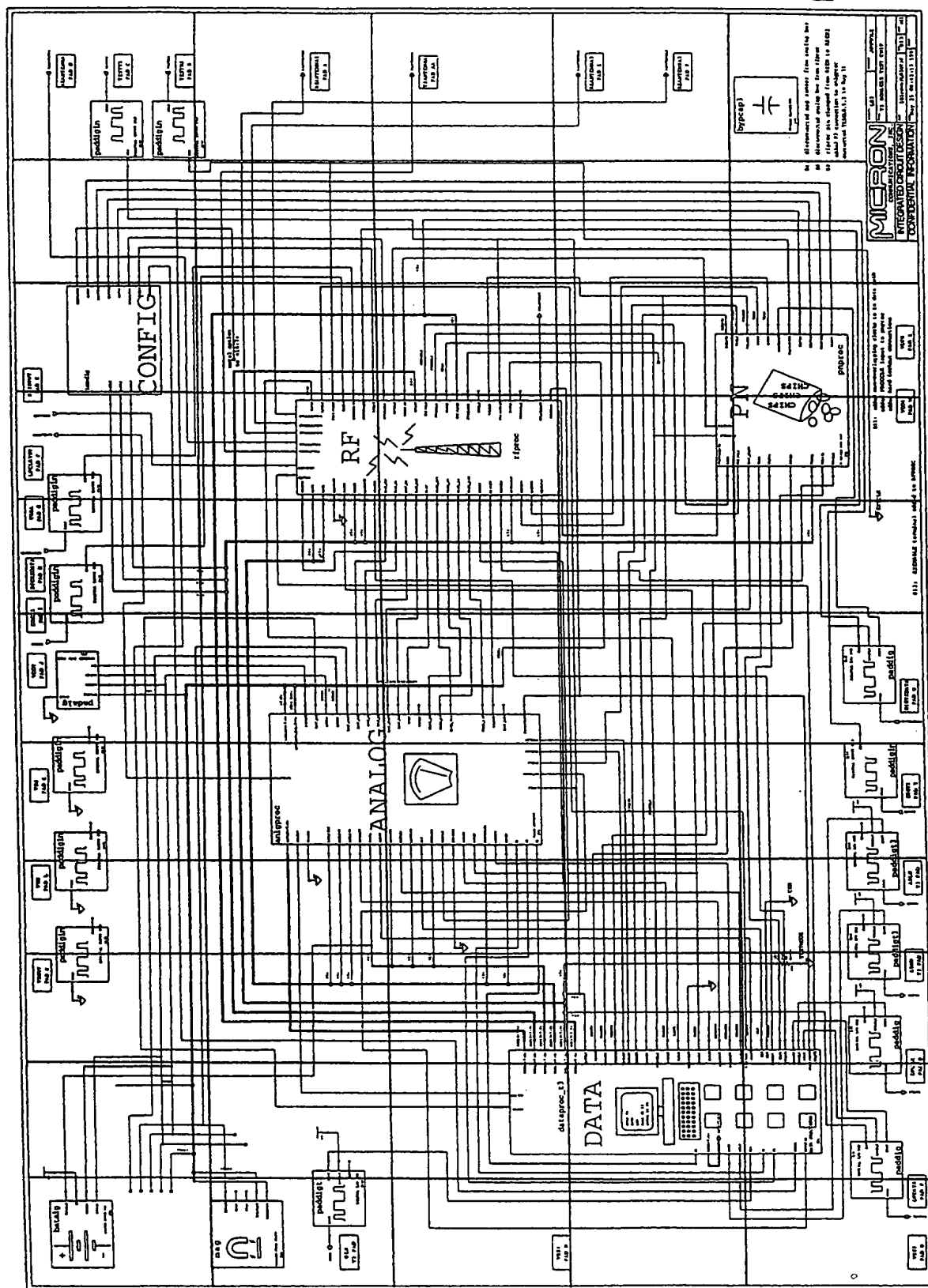




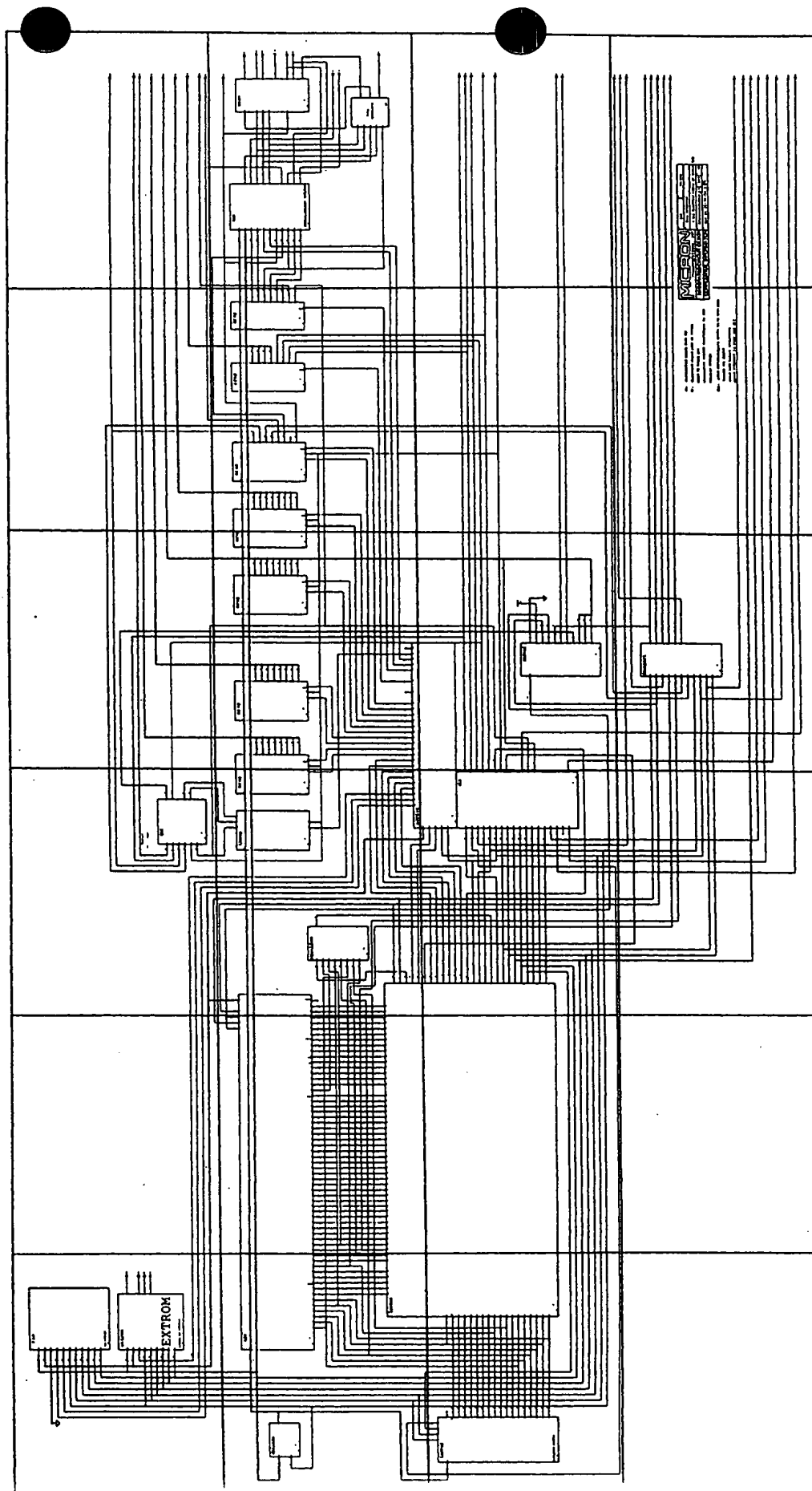
TABLE 20-20

|      |      |      |      |      |      |
|------|------|------|------|------|------|
| 20AA | 20AB | 20AC | 20AD | 20AE | 20AF |
| 20BA | 20BB | 20BC | 20BD | 20BE | 20BF |
| 20CA | 20CB | 20CC | 20CD | 20CE | 20CF |
|      |      | 20DC | 20DD | 20DE | 20DF |

TABLE 20-20

TOP SECRET

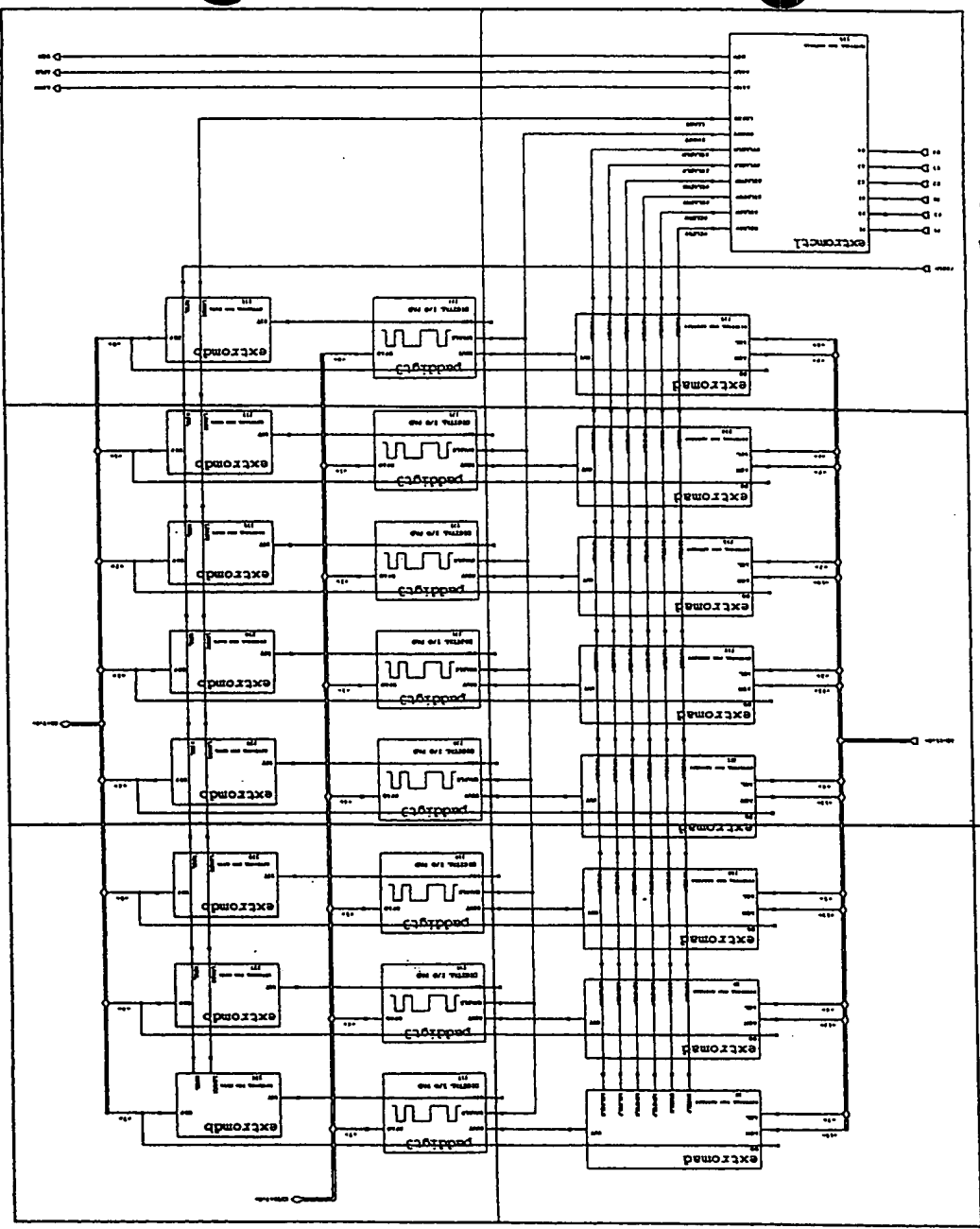
Fig. 20



|         |         |
|---------|---------|
| 20.01AA | 20.01AB |
| 20.01BA | 20.01BB |
| 20.01CA | 20.01CB |

Fig 20.01

Fig. 20.01



This document is the property of Noron Communications, Inc. and is to be used only for the purpose intended. It is not to be distributed, copied, or reproduced in any form without the written permission of Noron Communications, Inc.

Page 6 of 6

|           |           |
|-----------|-----------|
| 20.0101AA | 20.0101AB |
| 20.0101BA | 20.0101BB |

MI40-030

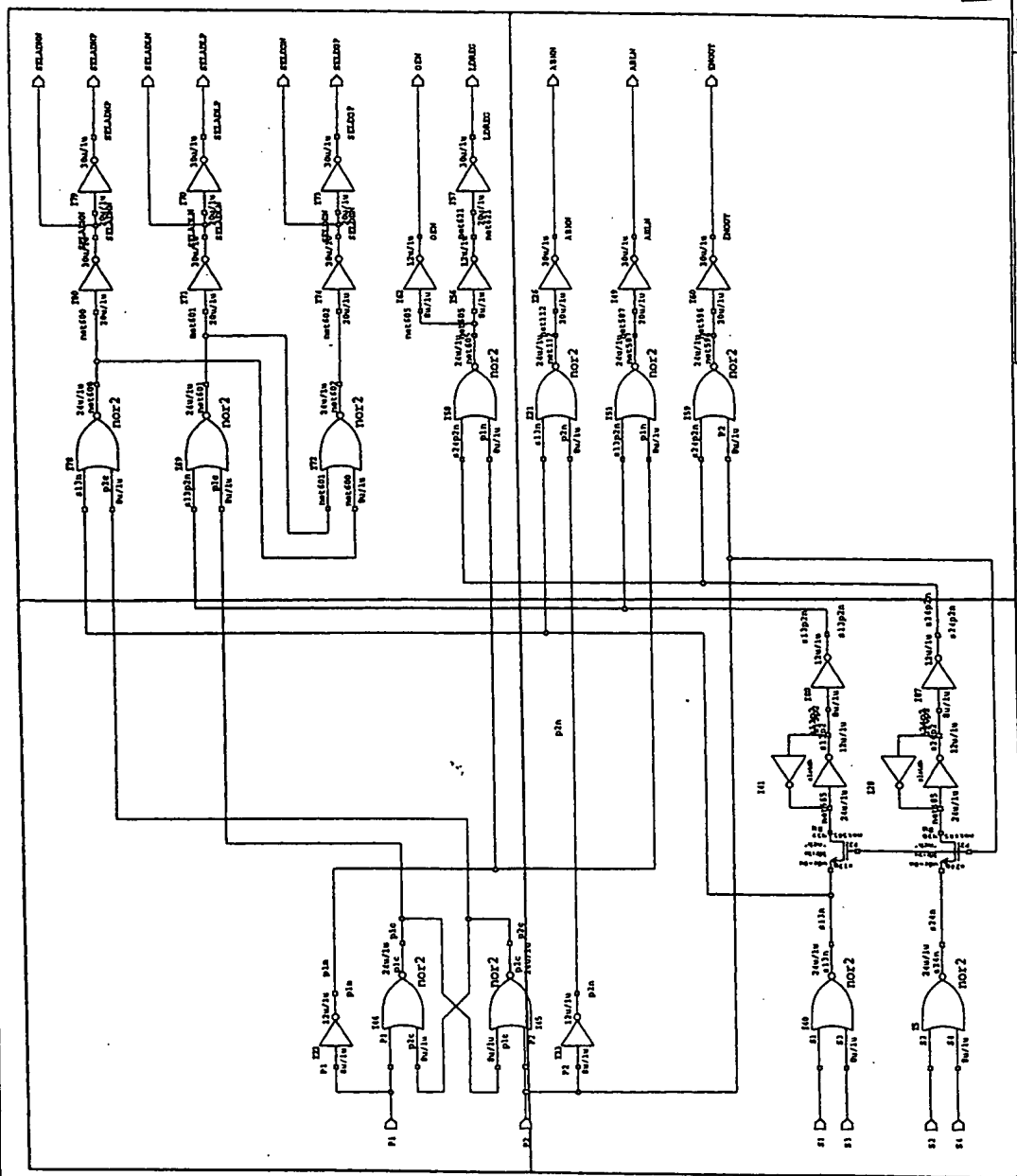


FIG. 20.0101

# NOORNIC COMMUNICATIONS, INC.

COMMUNICATIONS, INC.

## INTEGRATED CIRCUIT DESIGN

CONFIDENTIAL INFORMATION

|              |                   |
|--------------|-------------------|
| PROJECT: L03 | DESIGNER: Rotzoll |
|--------------|-------------------|

|                            |  |
|----------------------------|--|
| External ROM Control Logic |  |
|----------------------------|--|

## External ROM Control Logic

|     |              |     |
|-----|--------------|-----|
| 103 | reva/extract | 111 |
|-----|--------------|-----|

Dec 11 21:56:41 1993

Dec 11 21:56:41 1993

Dec 11 21:56:41 1993

Dec 11 21:56:41 1993

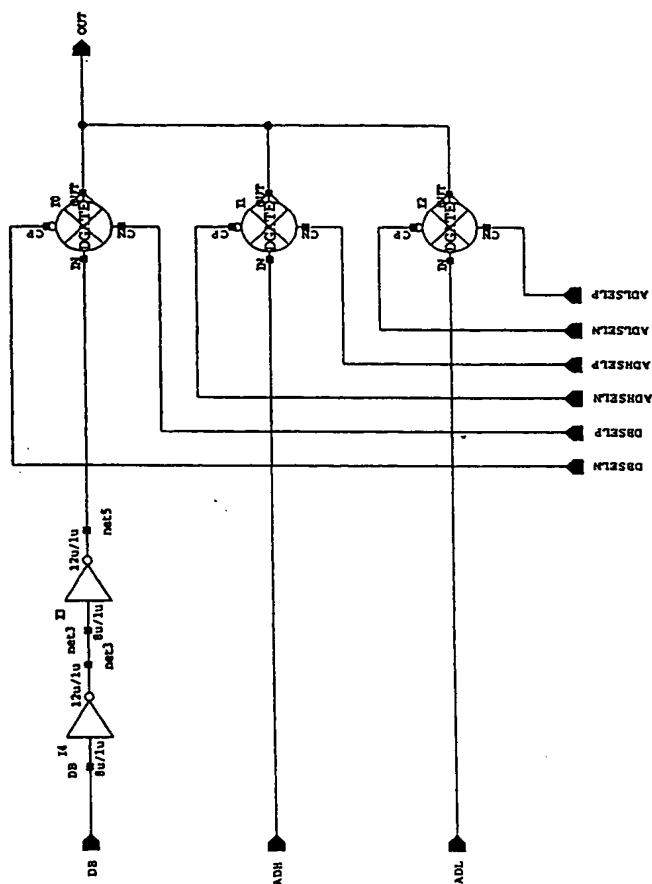
[illegible]

FIG. 20.0102

|                                       |  |                   |
|---------------------------------------|--|-------------------|
| PROJECT: L03                          |  | DESIGNER: Rotzoll |
| TITLE: External ROM Address Interface |  |                   |
| NAME: 103reva/extromad                |  |                   |
| REV: -                                |  |                   |
| SIZE: A                               |  |                   |
| DATE: Dec 11 01:09:14 1993            |  |                   |
| SHEET:                                |  |                   |

20.0103AA 20.0103AB 20.0103AC

|           |           |           |
|-----------|-----------|-----------|
| 20.0103AA | 20.0103AB | 20.0103AC |
|-----------|-----------|-----------|

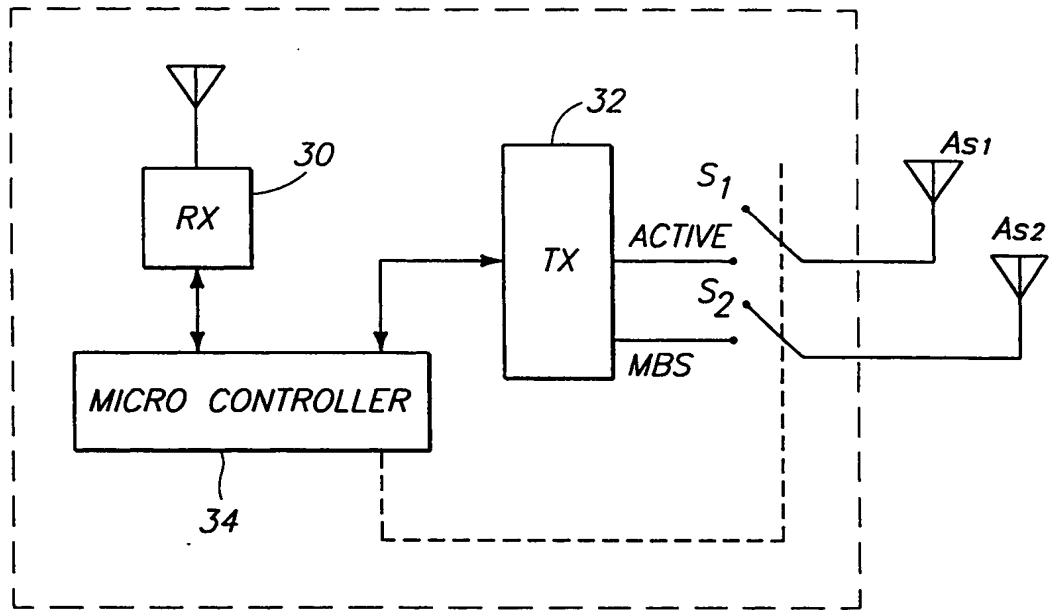
20.0103



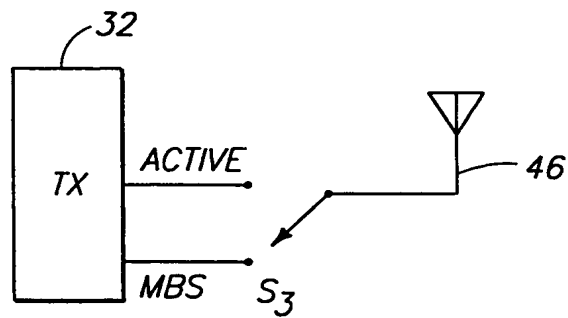
[illegible]

Fig 20.0103M-AC

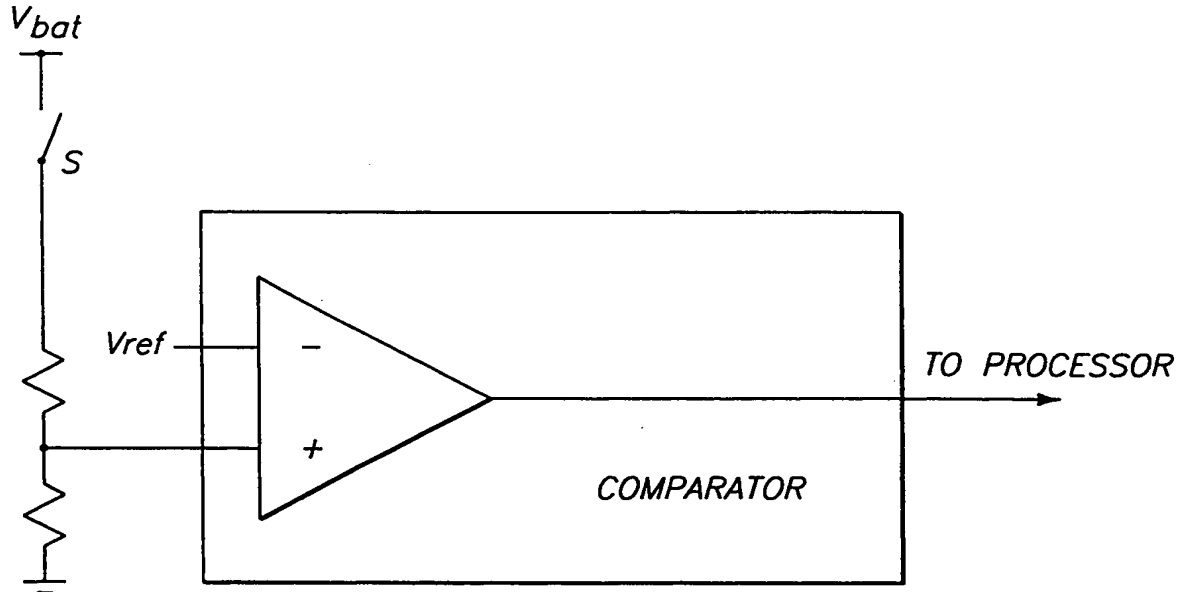




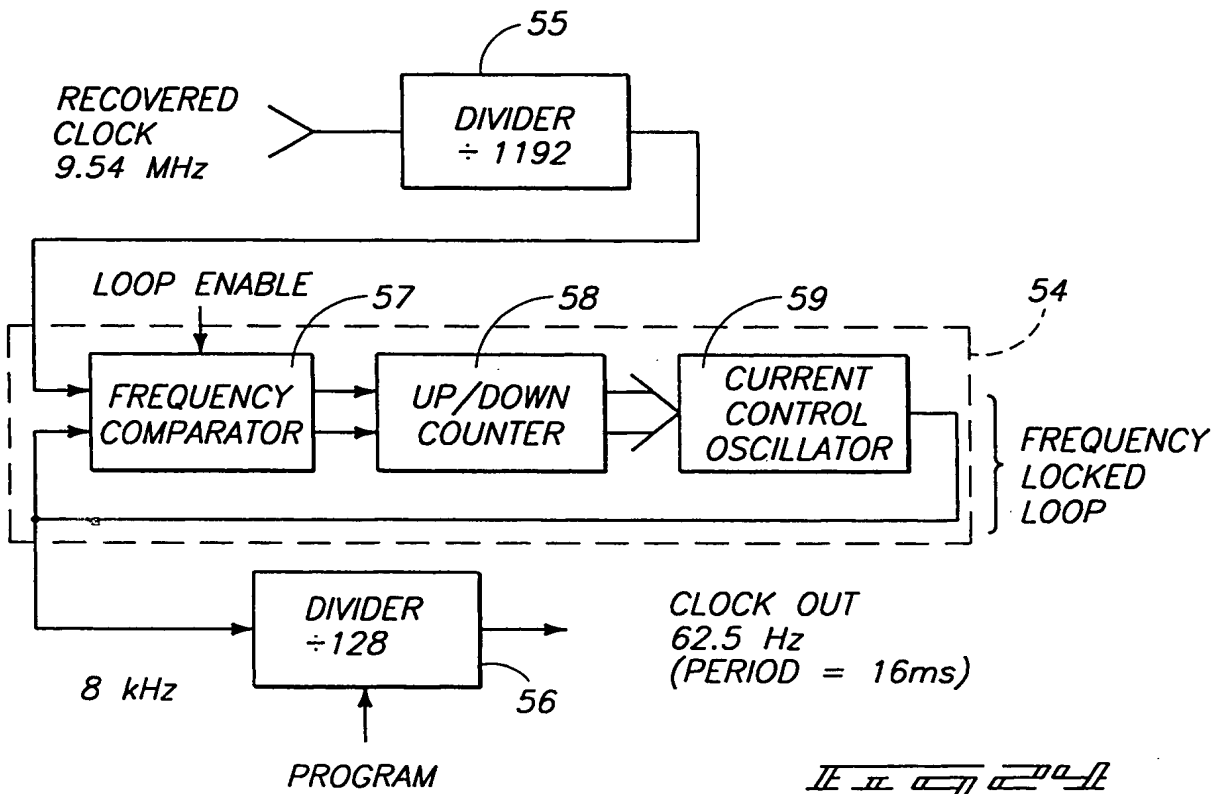
II II II II II

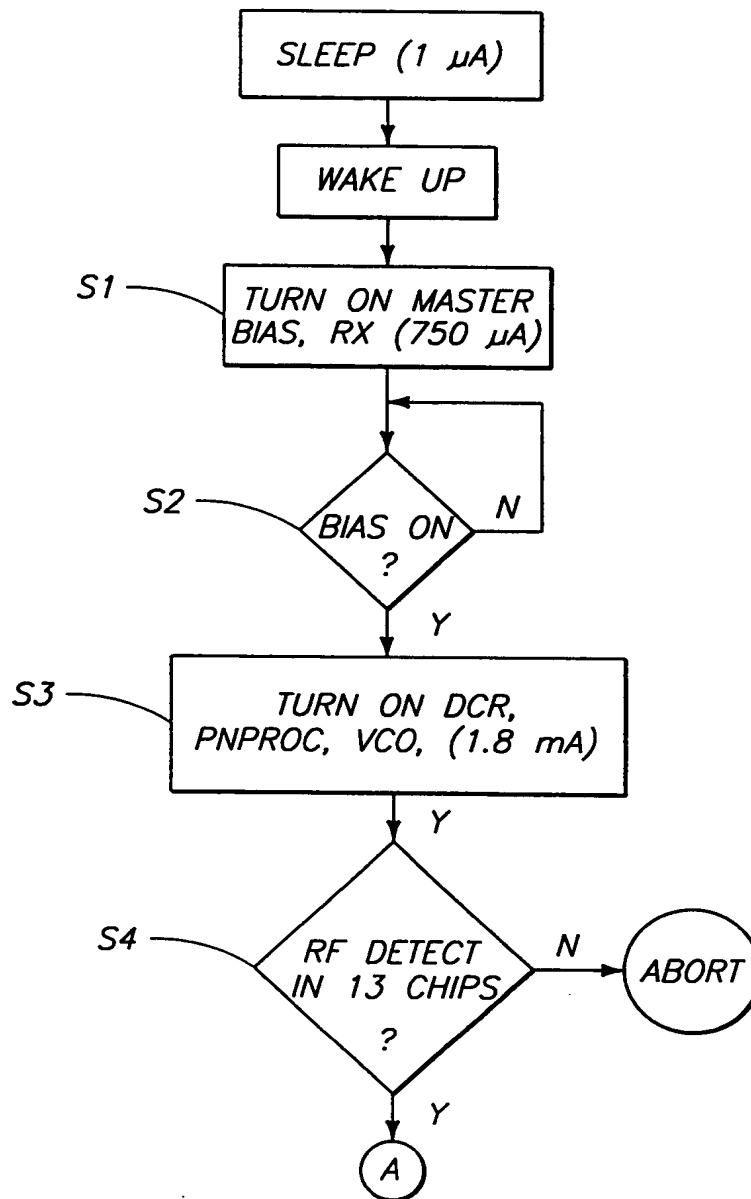


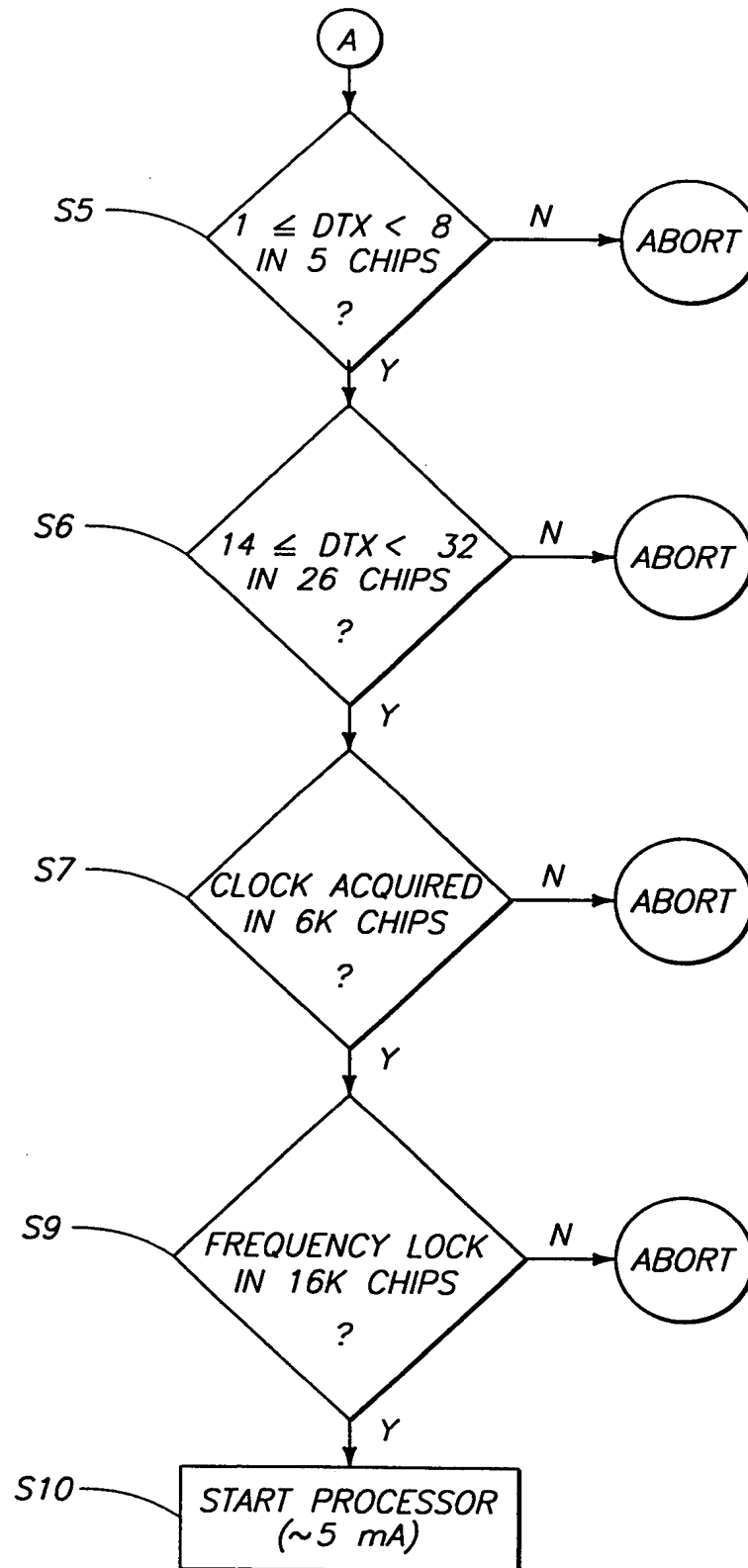
II II II II II



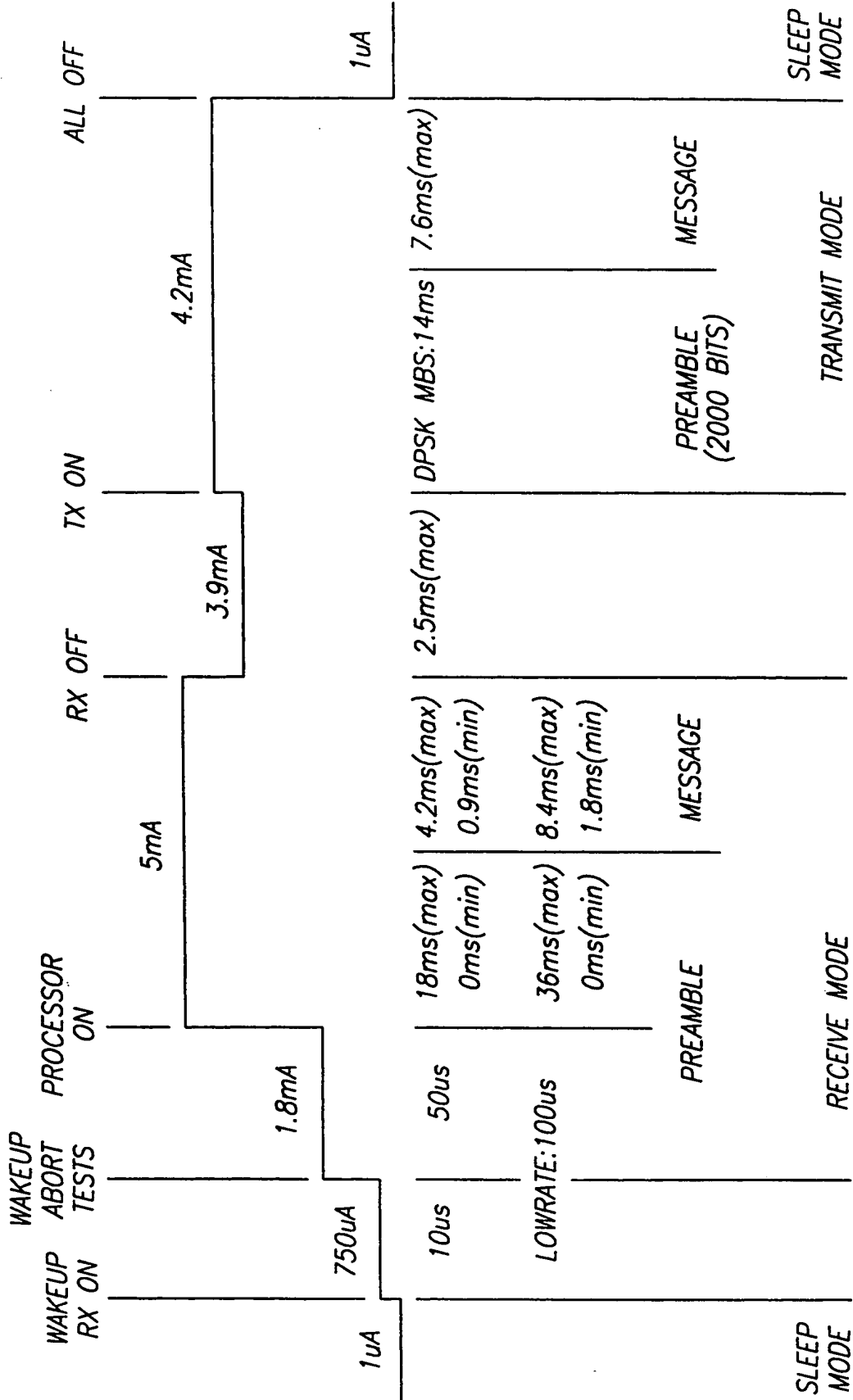
$V_{ref}$  = bandgap voltage  $\approx 1.2$  V for silicon



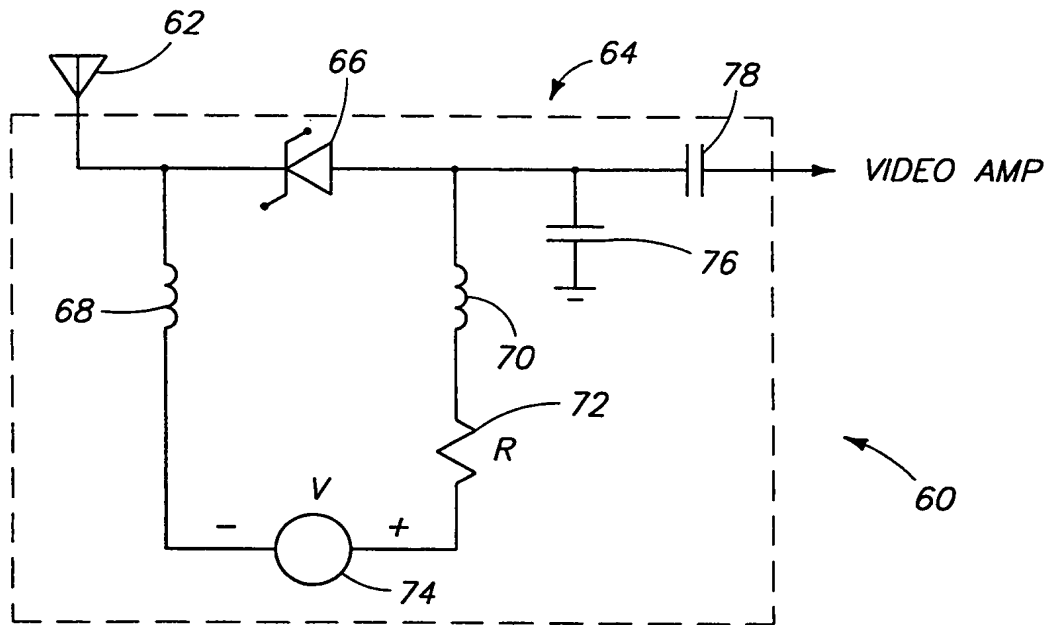
WAKEUP SEQUENCE



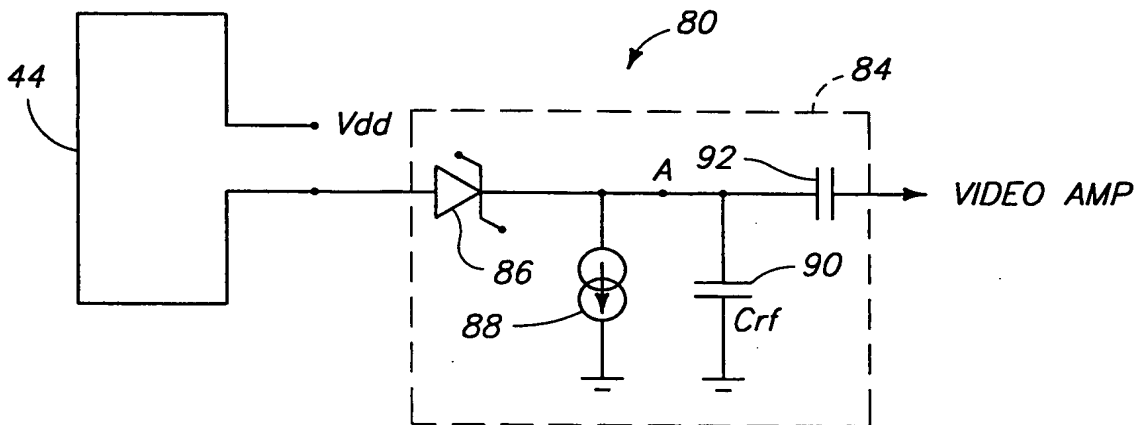
POWER SUPPLY



MI40-030



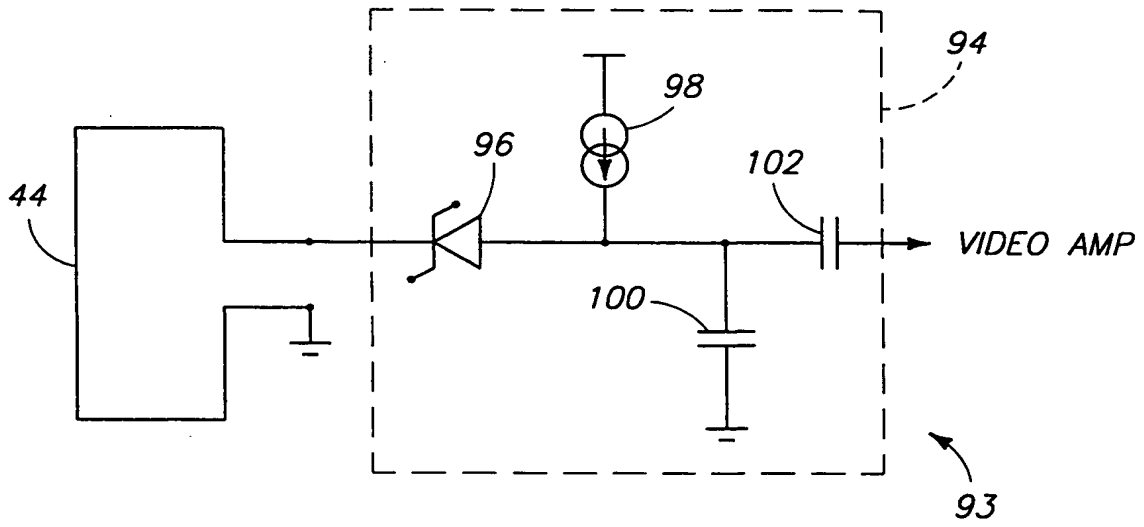
IEEE 288



IEEE 29

FOUO "E302880"



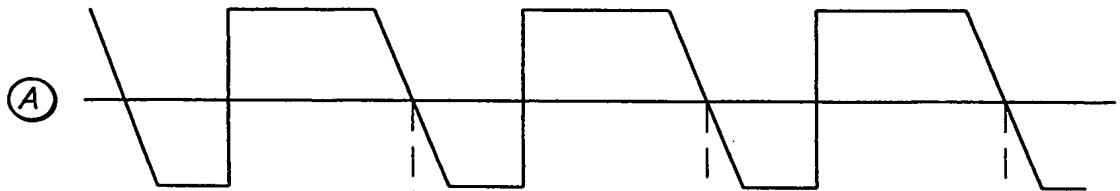


*IF II 311*

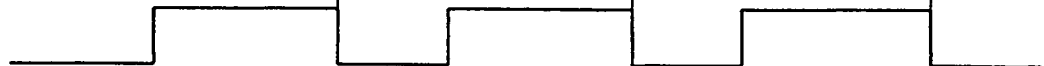
LOW POWER



HIGH POWER



AMPLIFIED  
DIGITAL  
SIGNAL



*IF II 311*

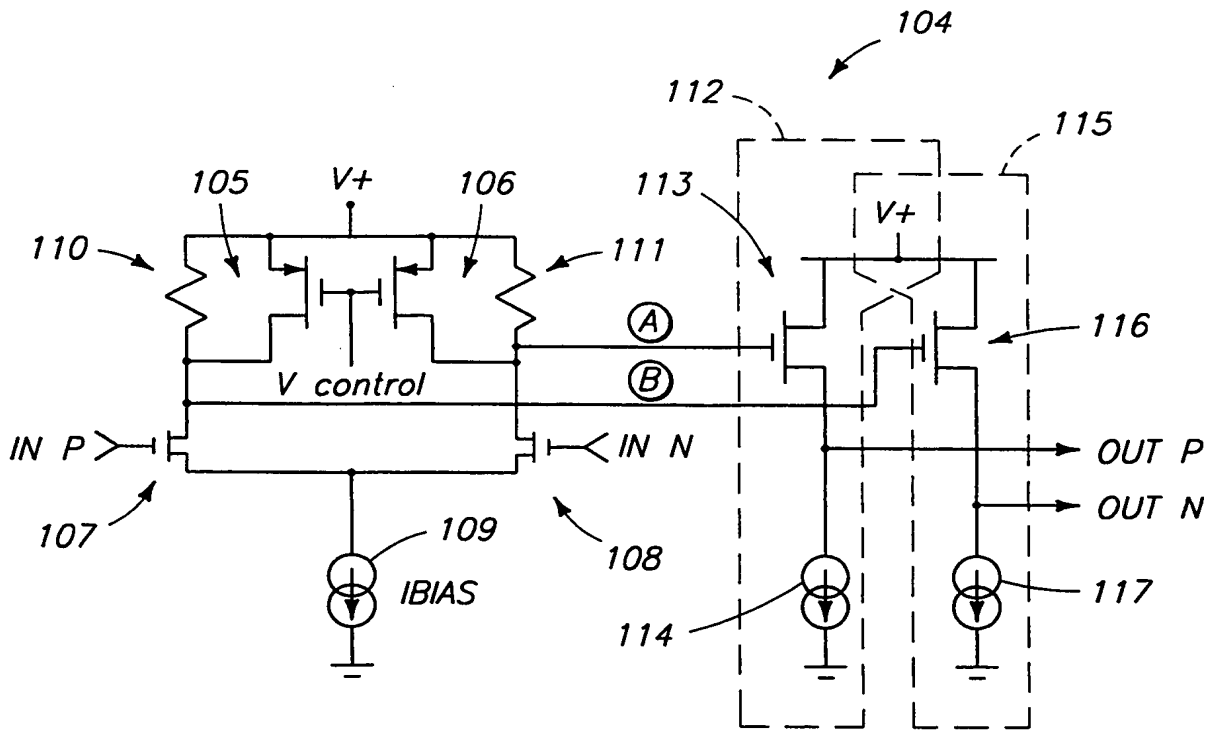


FIG. 2

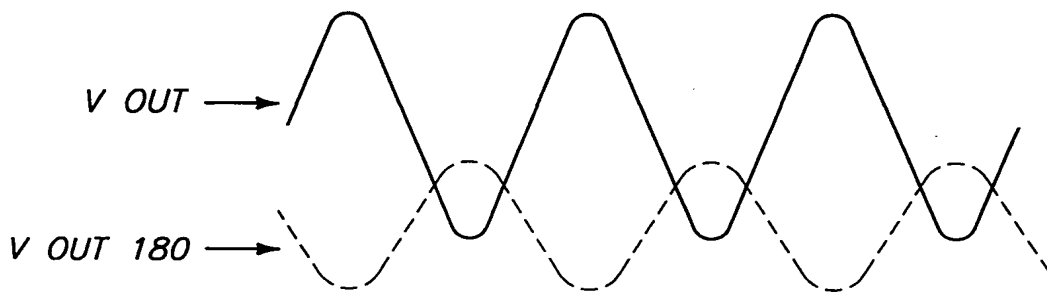
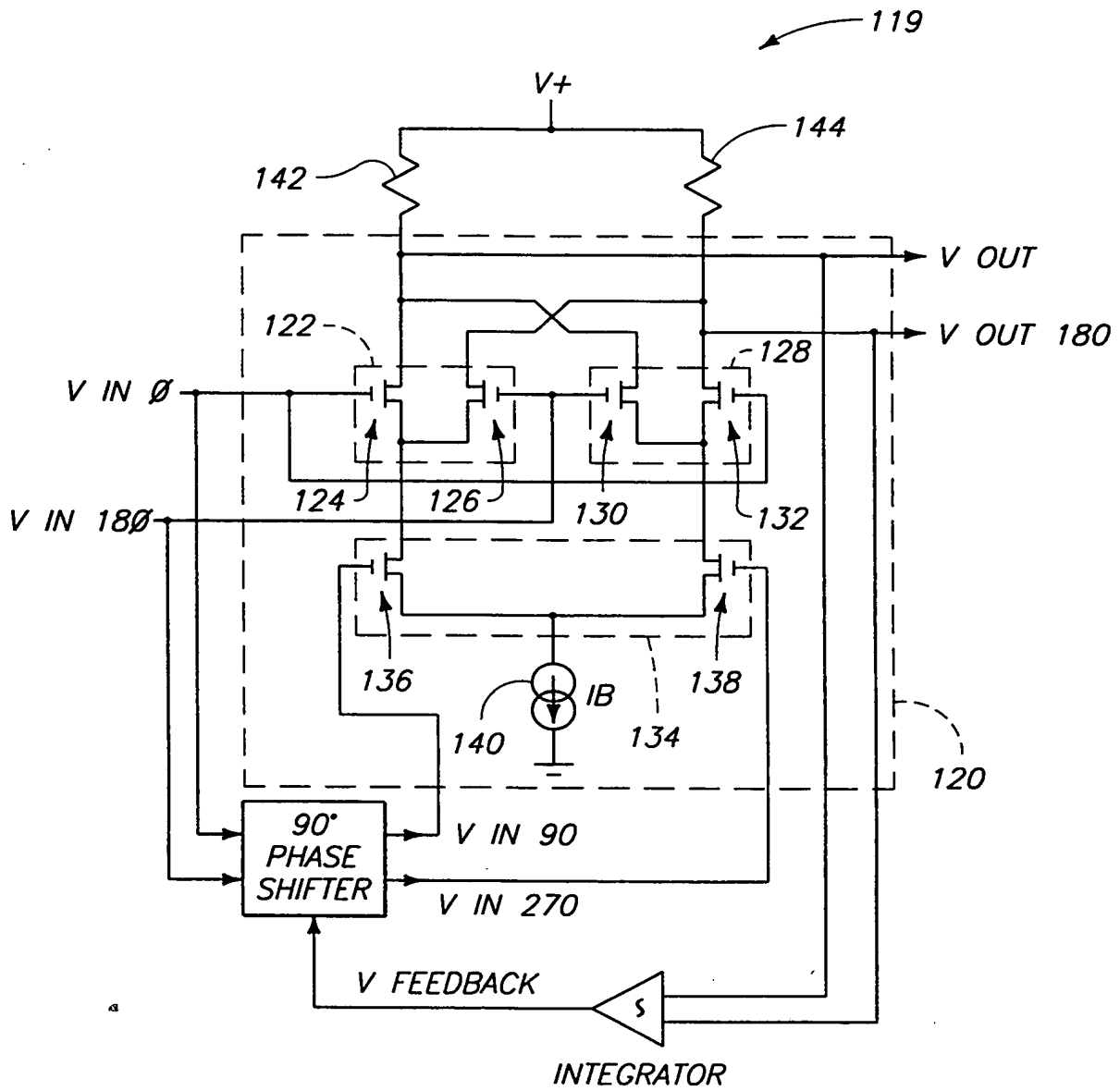


FIG. 3



IEEE 304

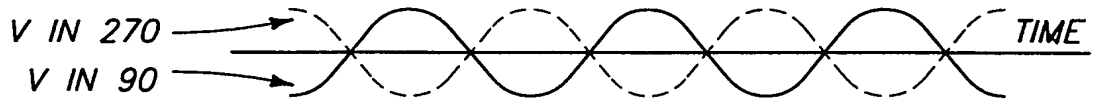
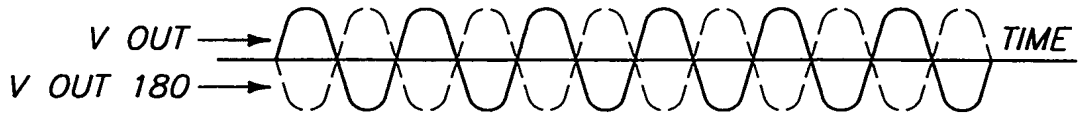
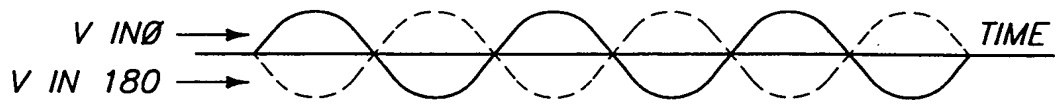


FIG. 35

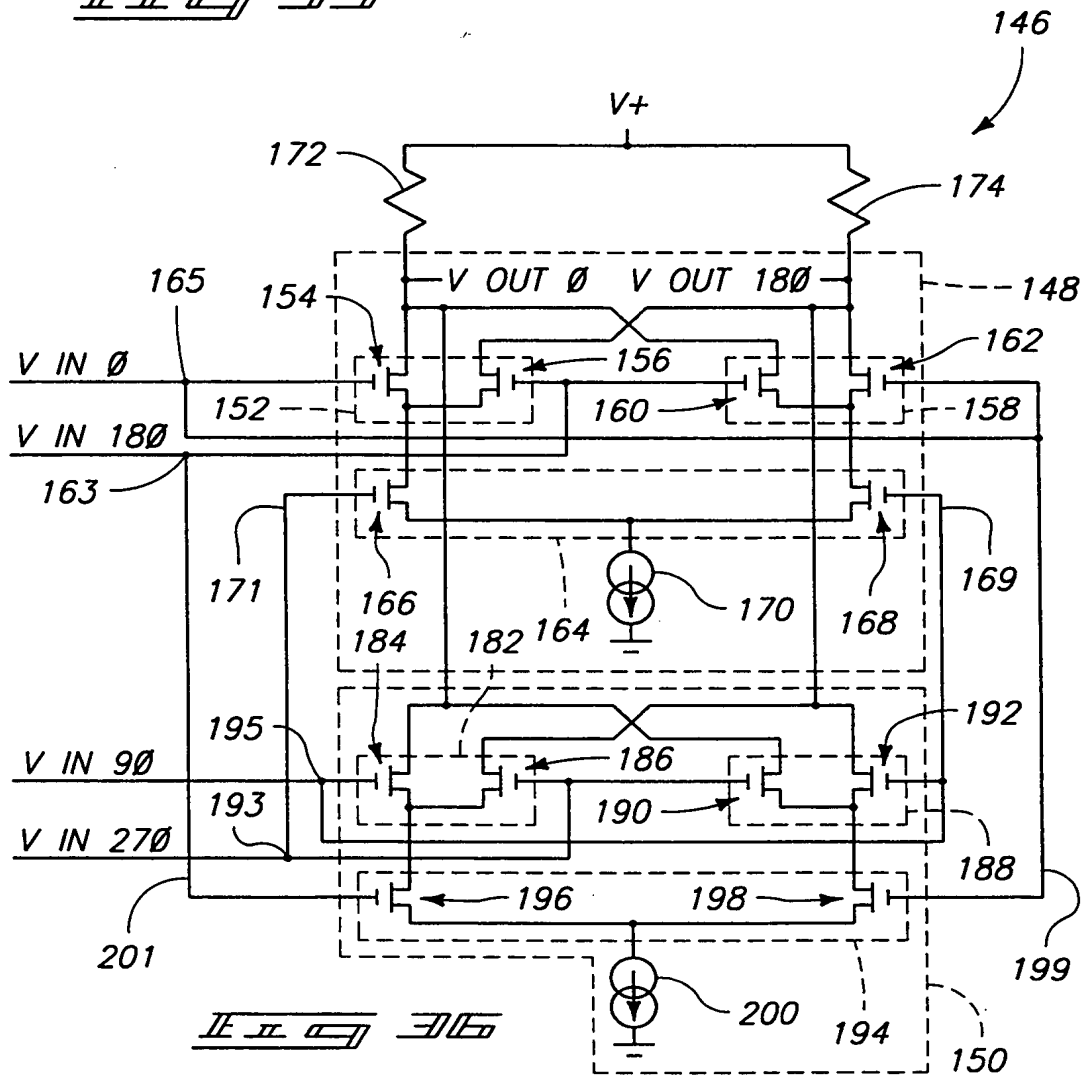
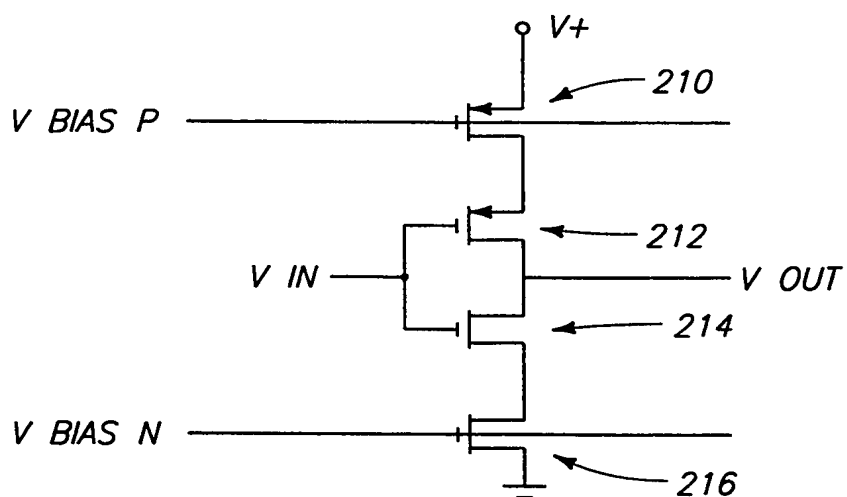


FIG. 36



Итого 37

**CONDUCTED BY**

236

232

N-

234

P-

$$\frac{88E}{100\pi I}$$

236

232

**N-**

234 —

9

FIG. 10

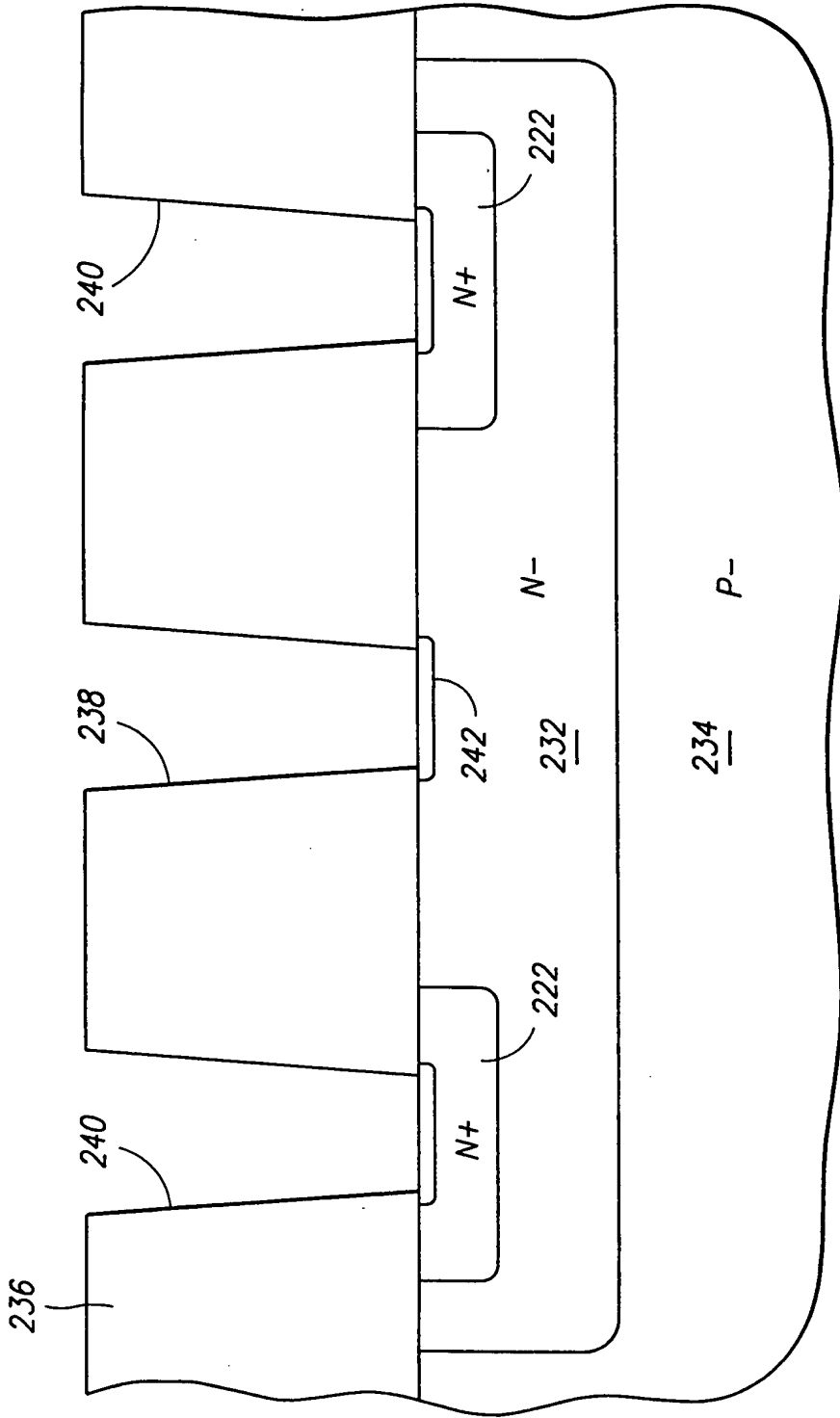


FIG. 11

FIG. 2

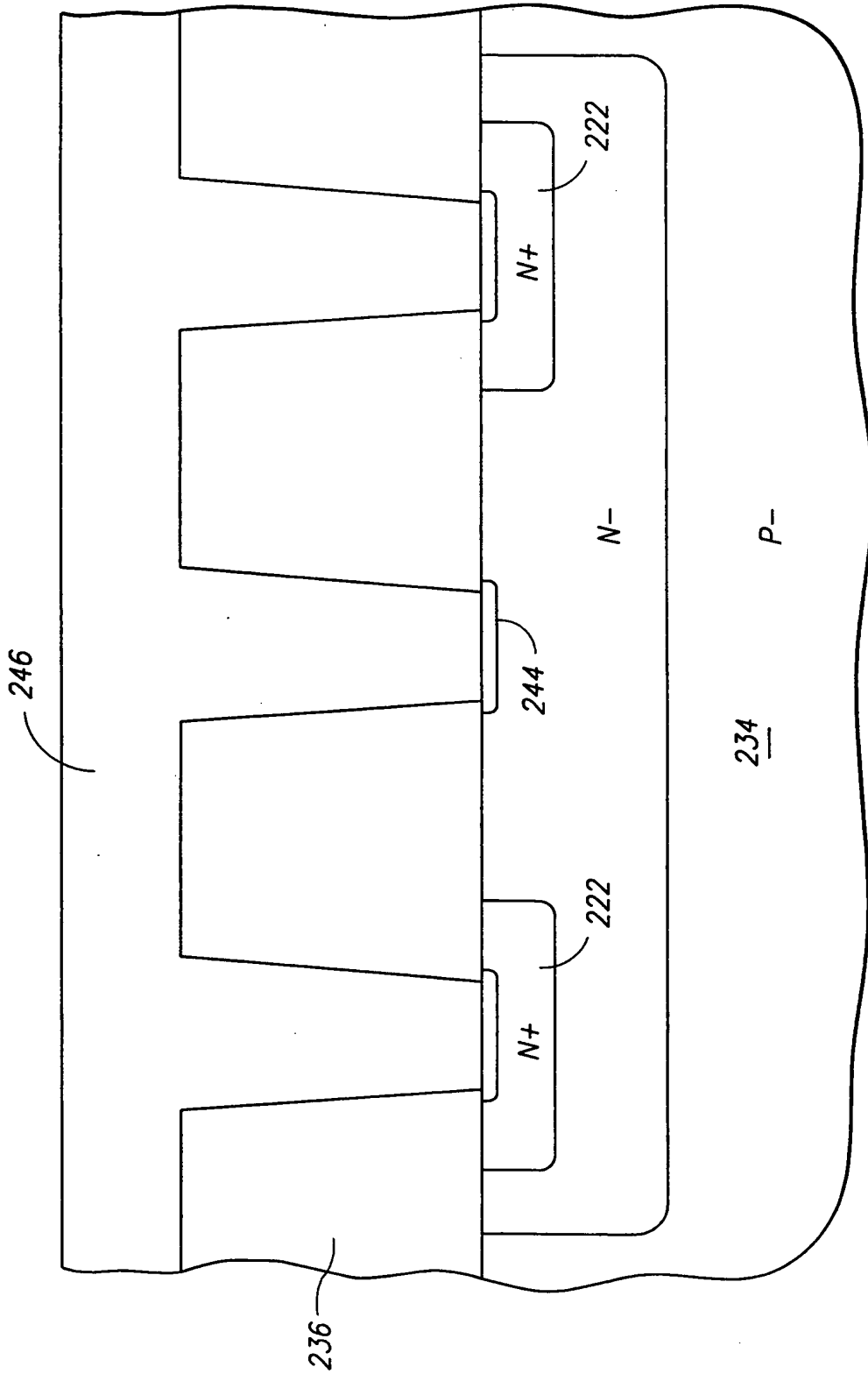


FIG. 3



FIG. 3000

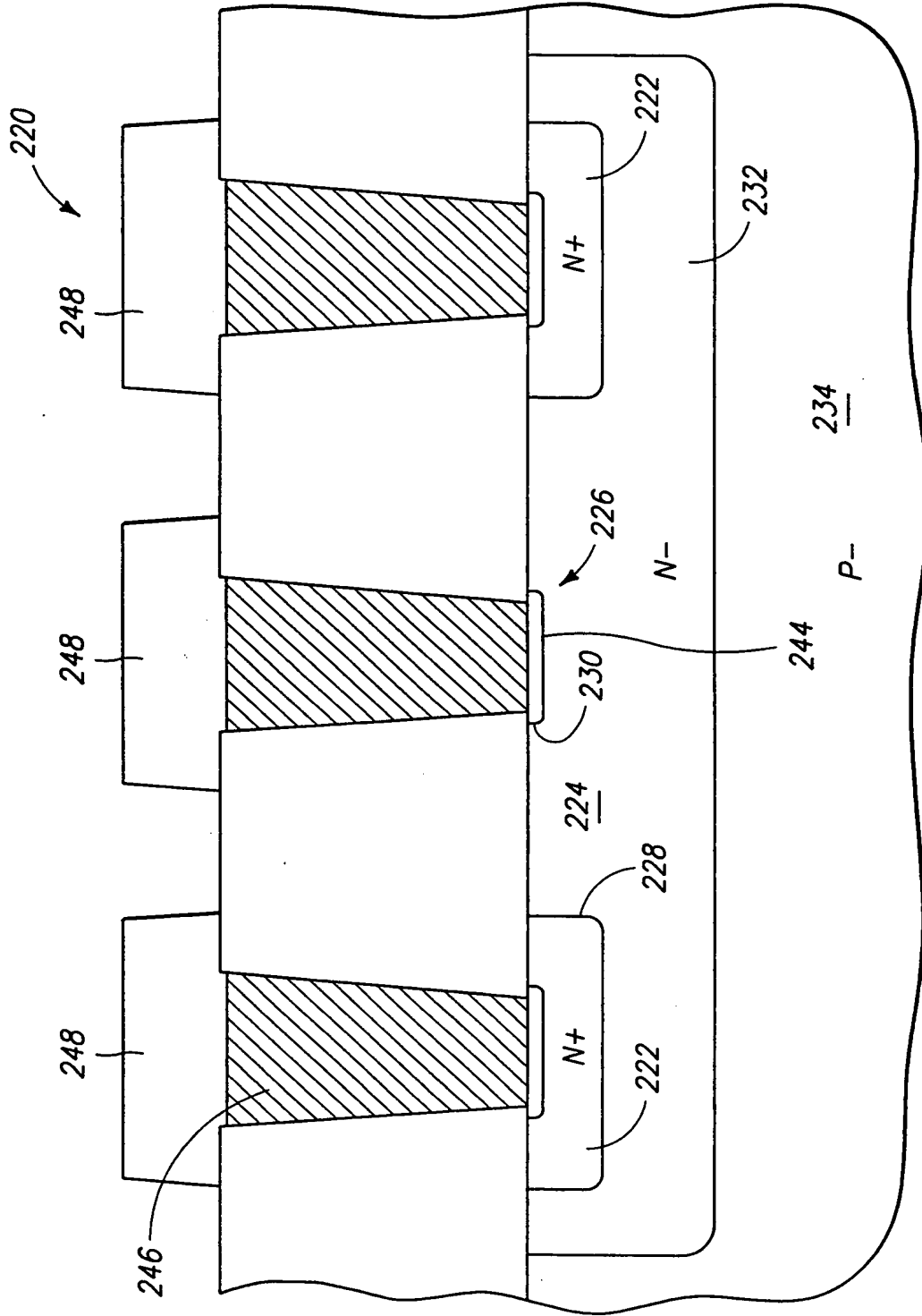


FIG. 3000

FIG. 10

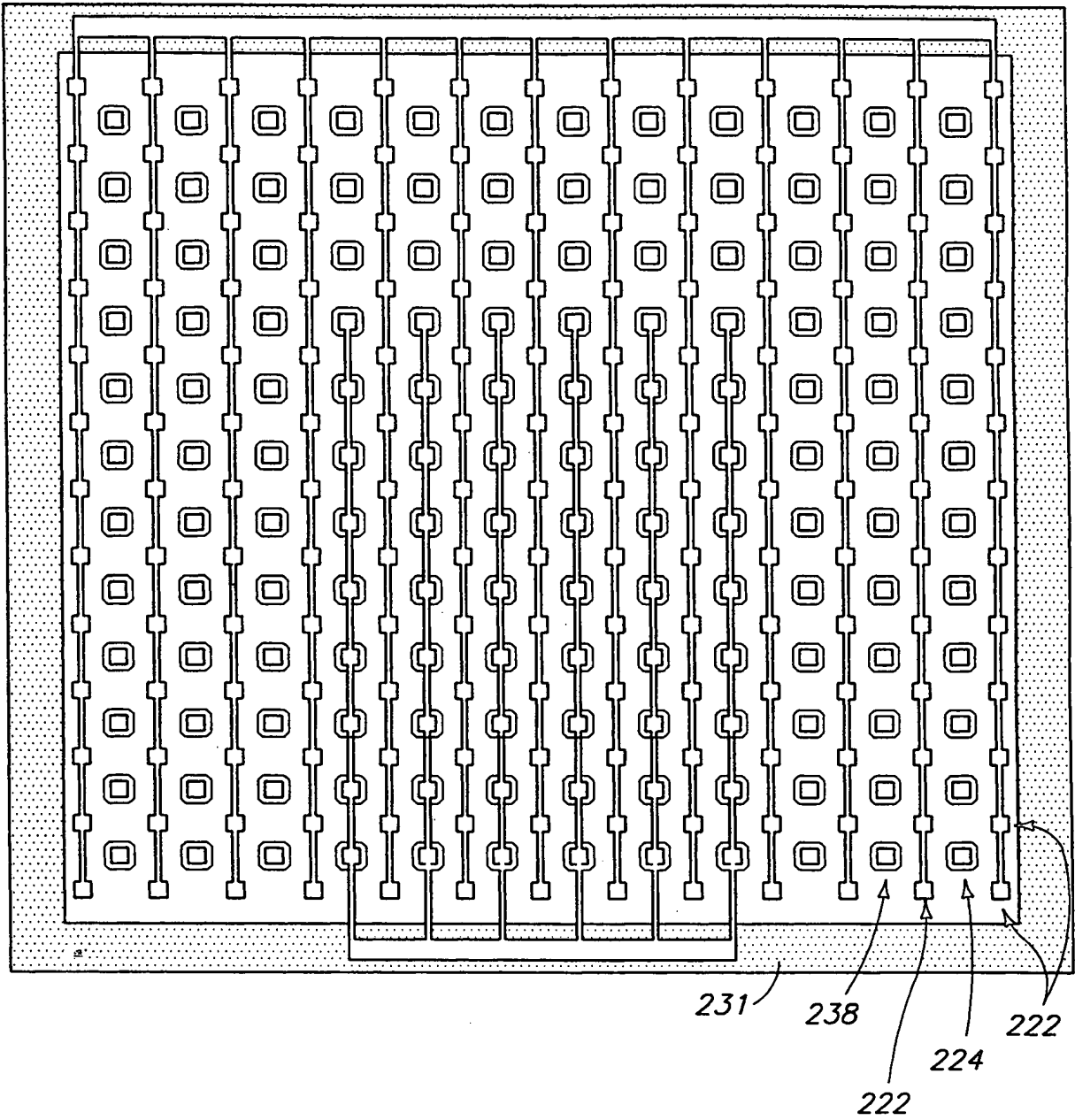
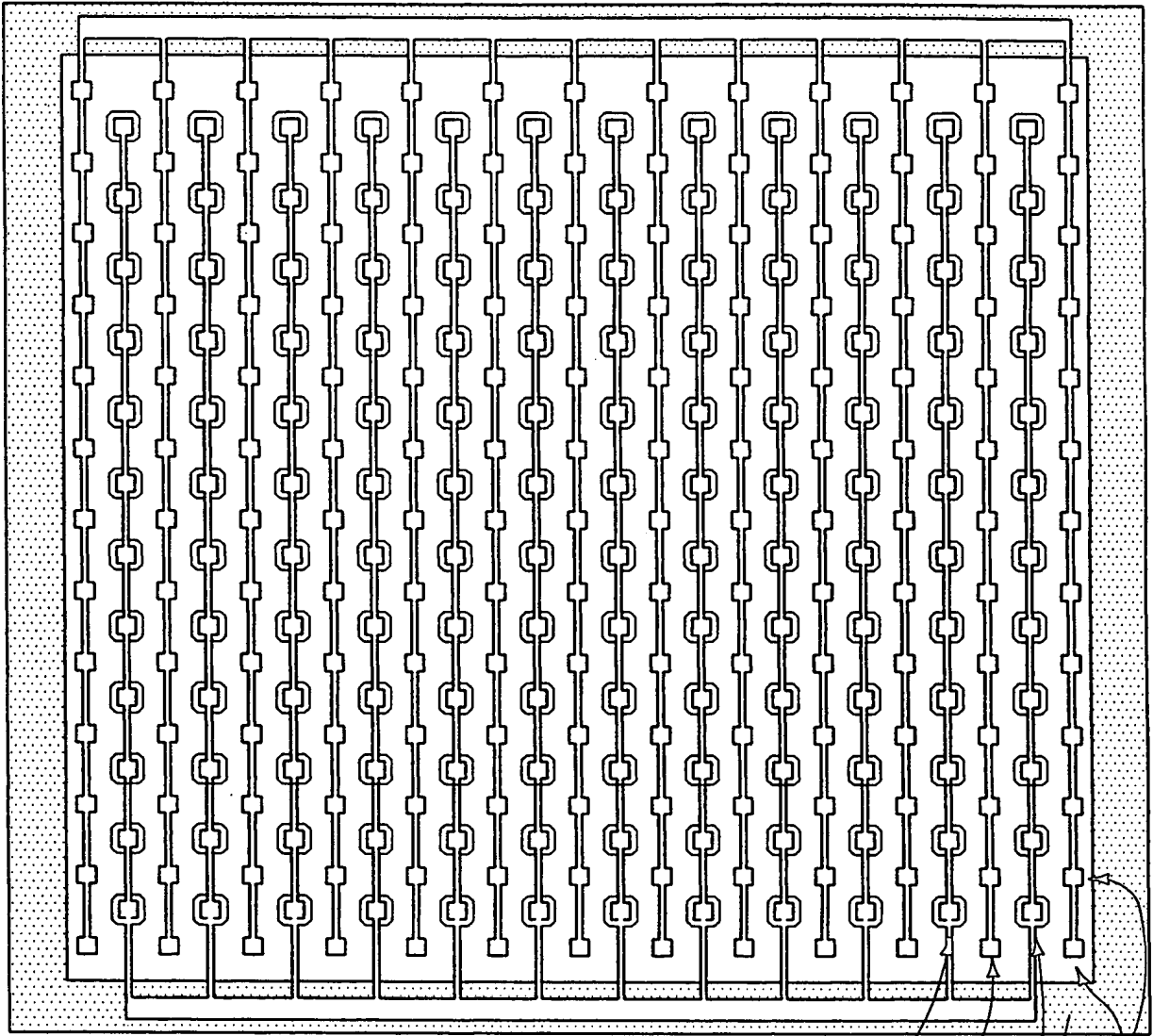


FIG. 11

FIG. 10



238  
224  
222  
231

FIG. 11

260

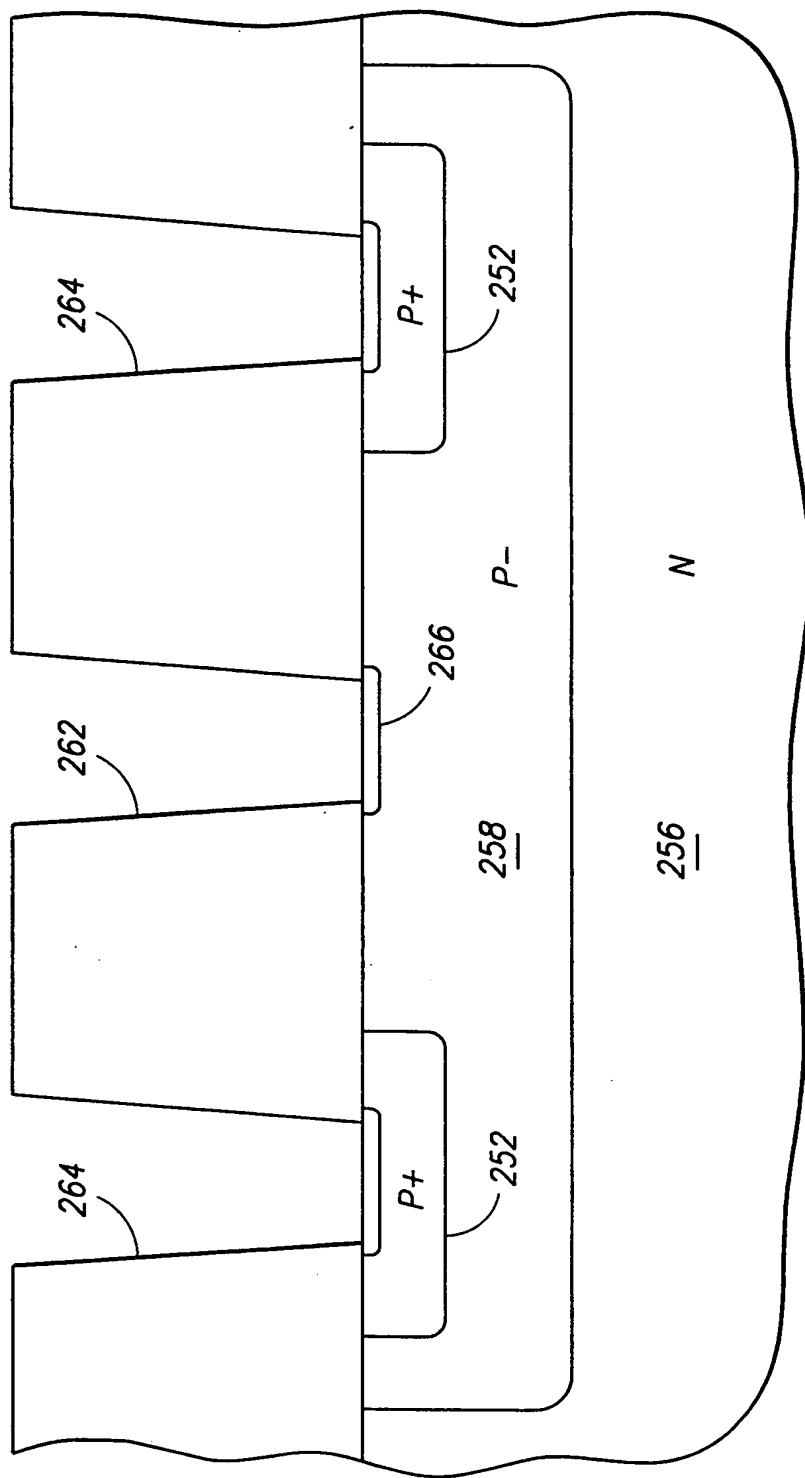
258

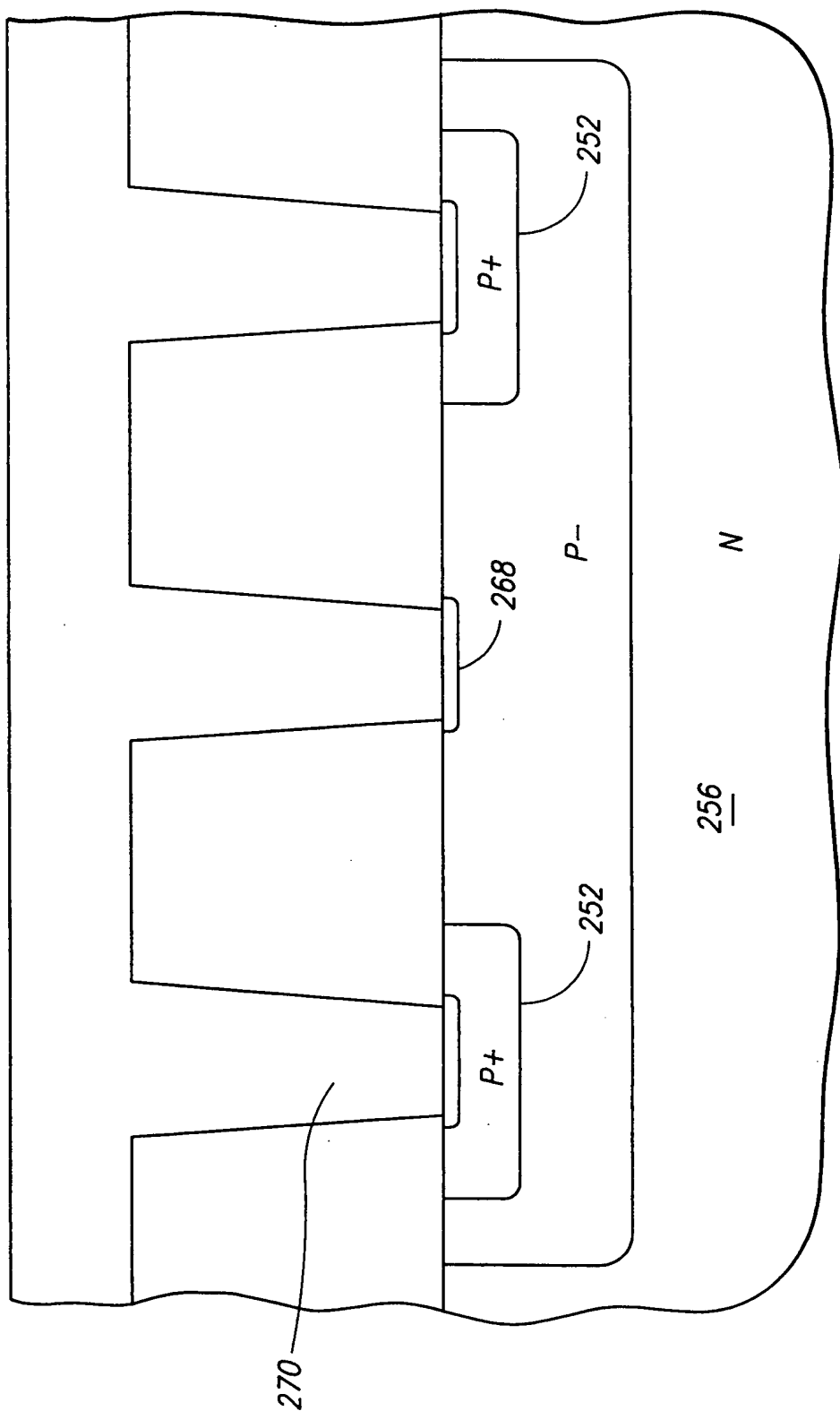
P-

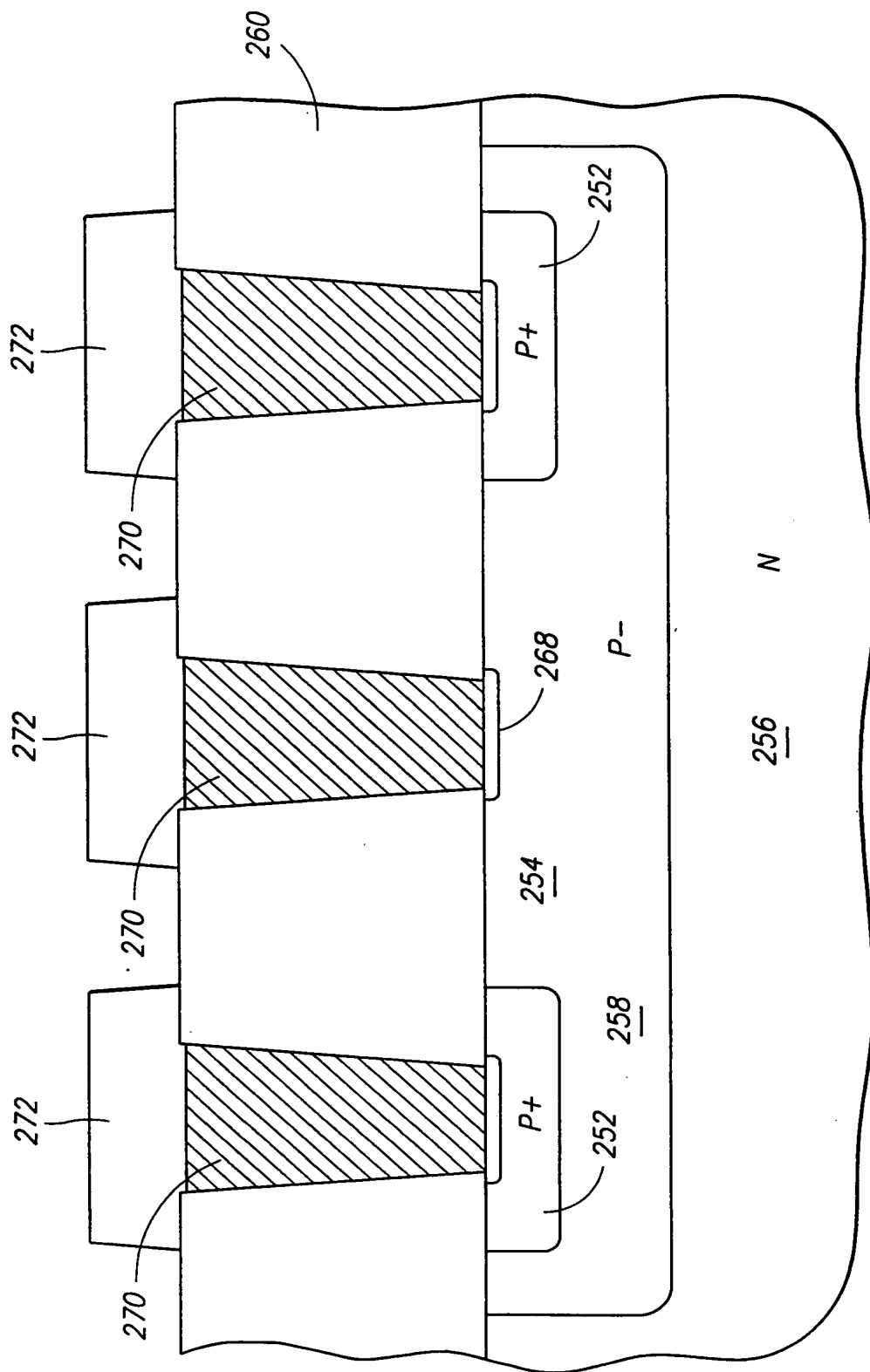
256

N

MI40-030







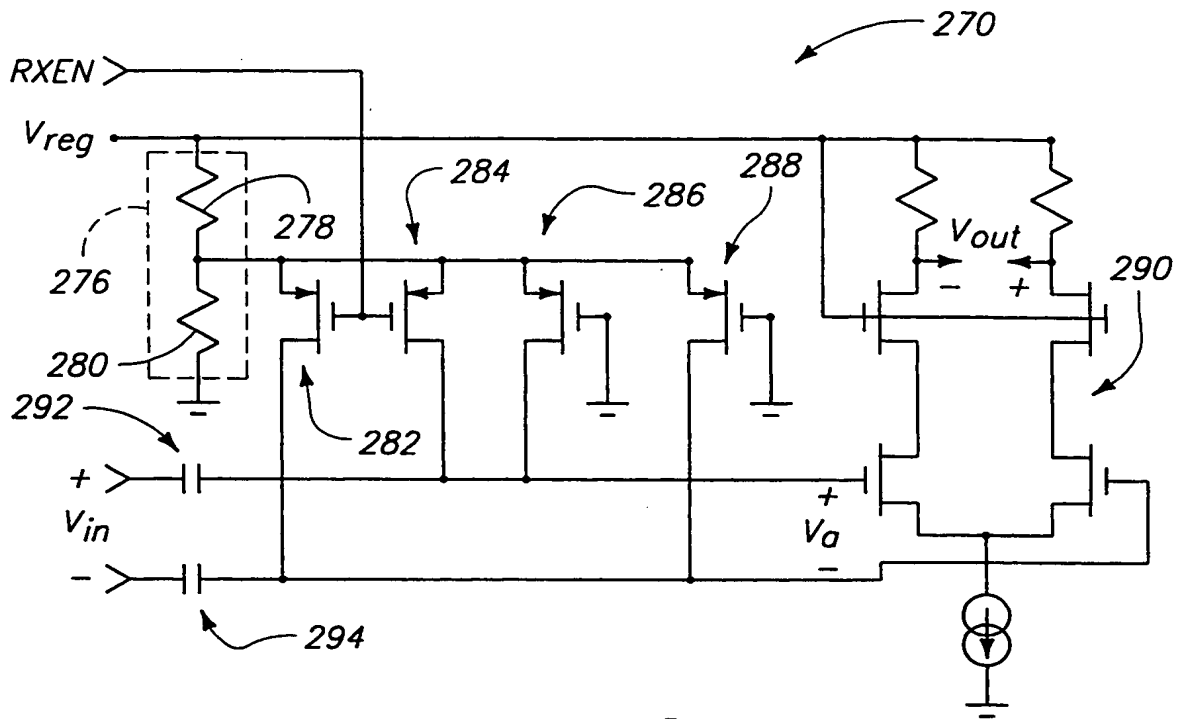


FIG. 4

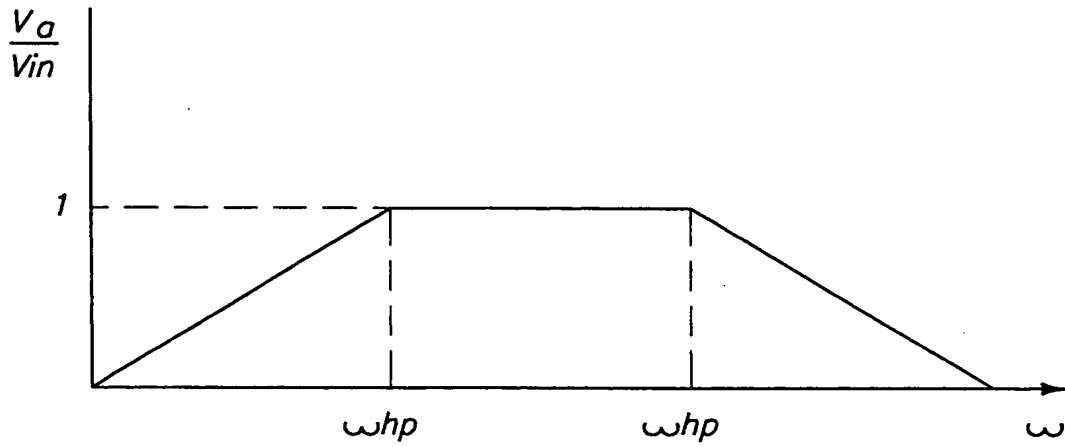


FIG. 5

FIG. 4



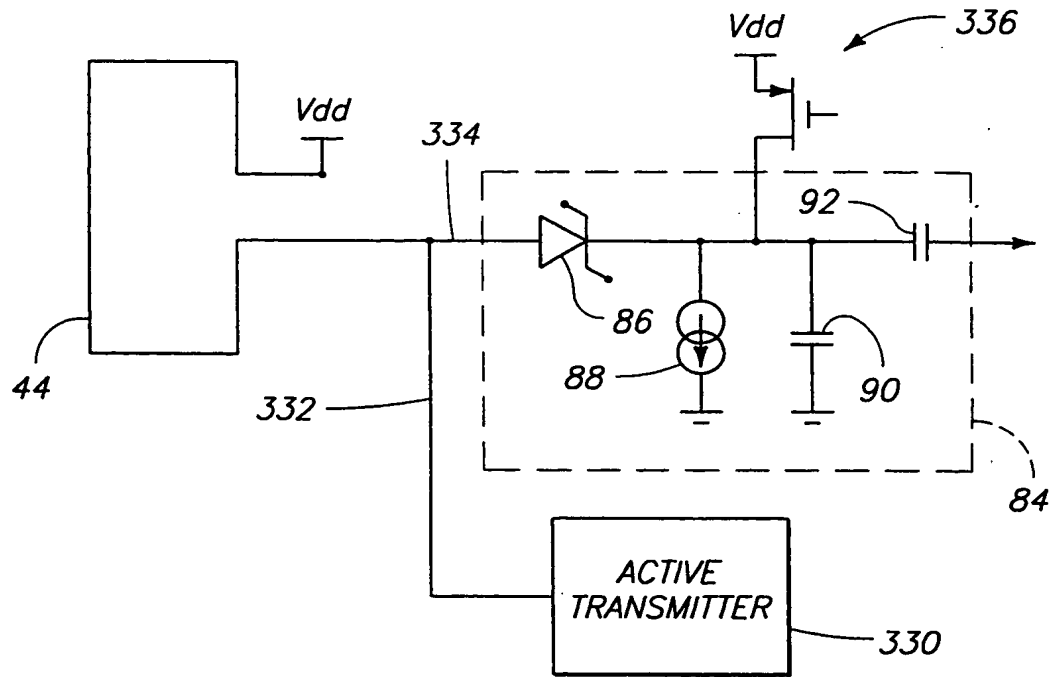


FIG. 50

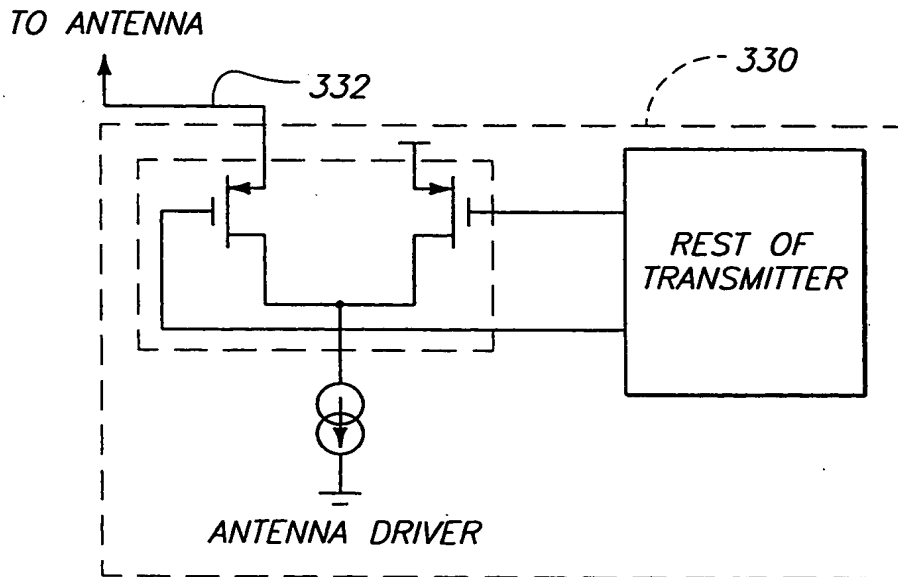


FIG. 51

2025 RELEASE UNDER E.O. 14176

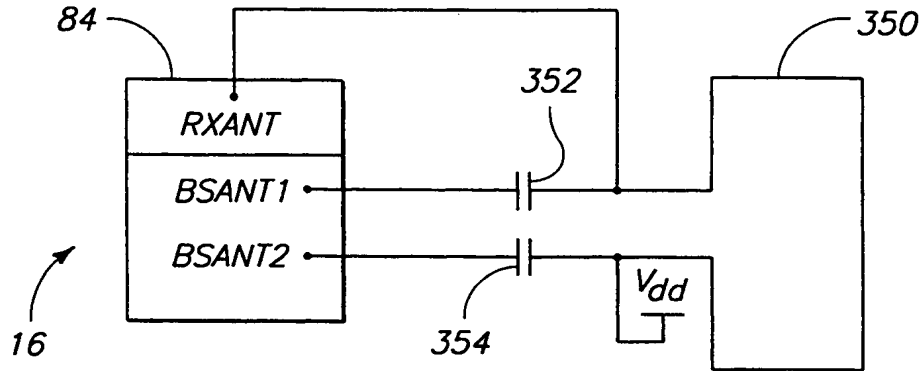


FIG. 52

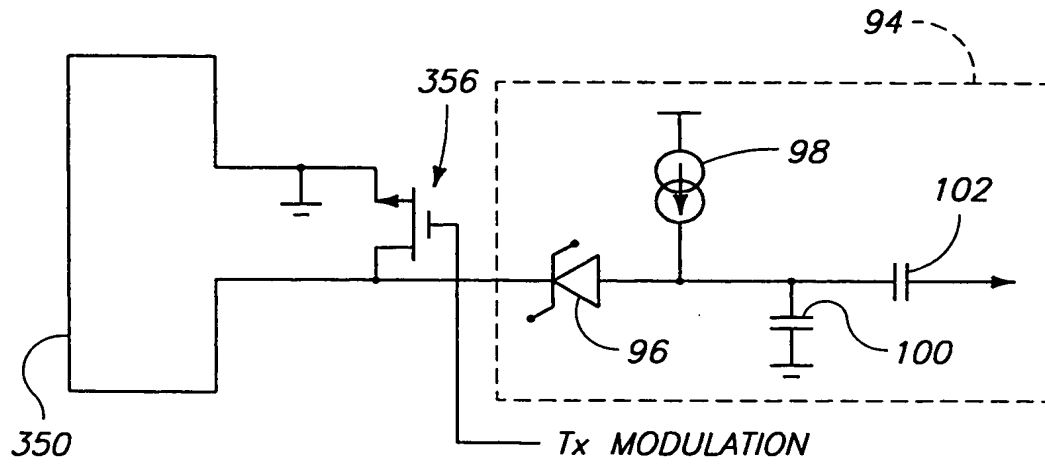
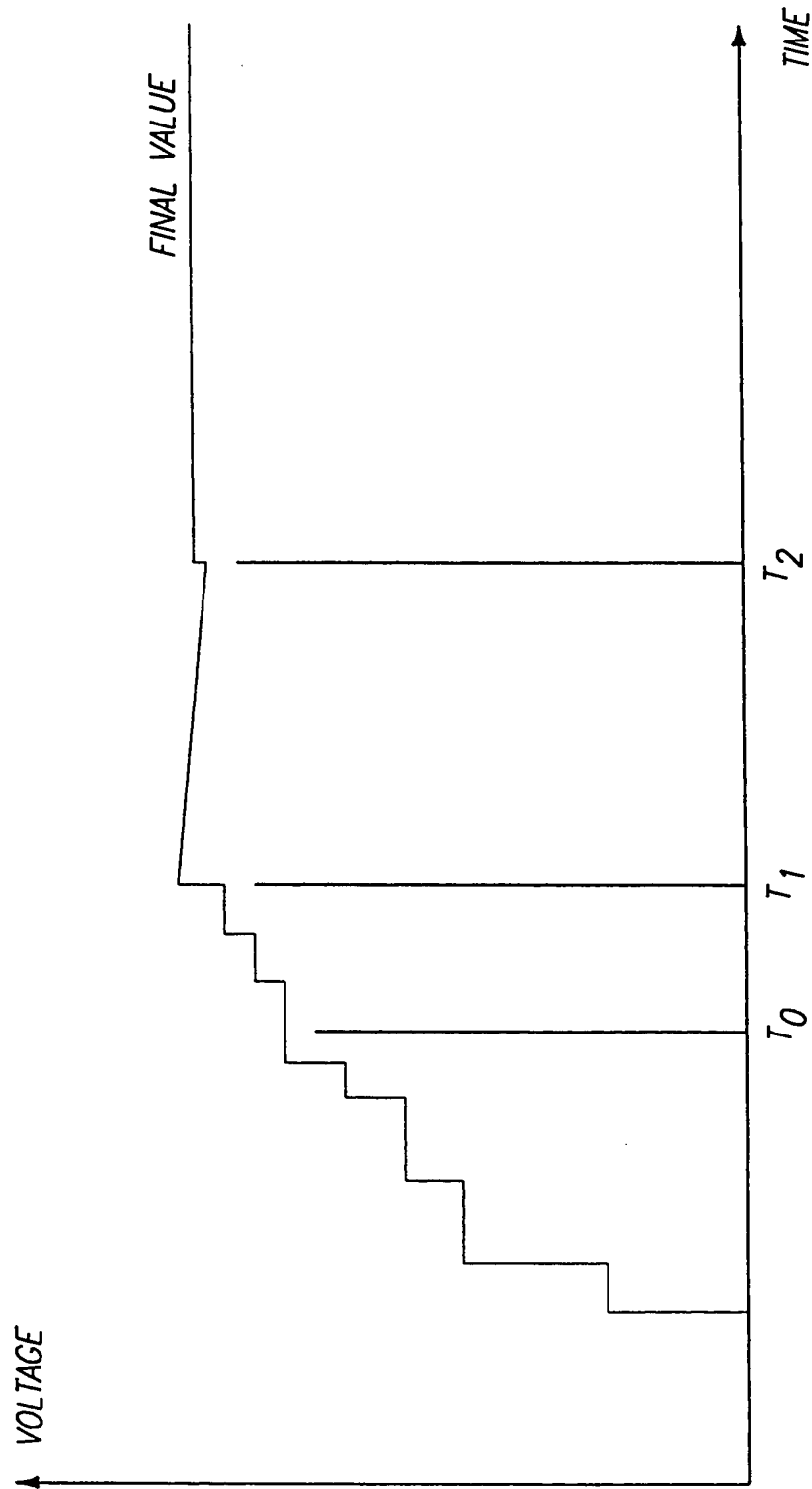


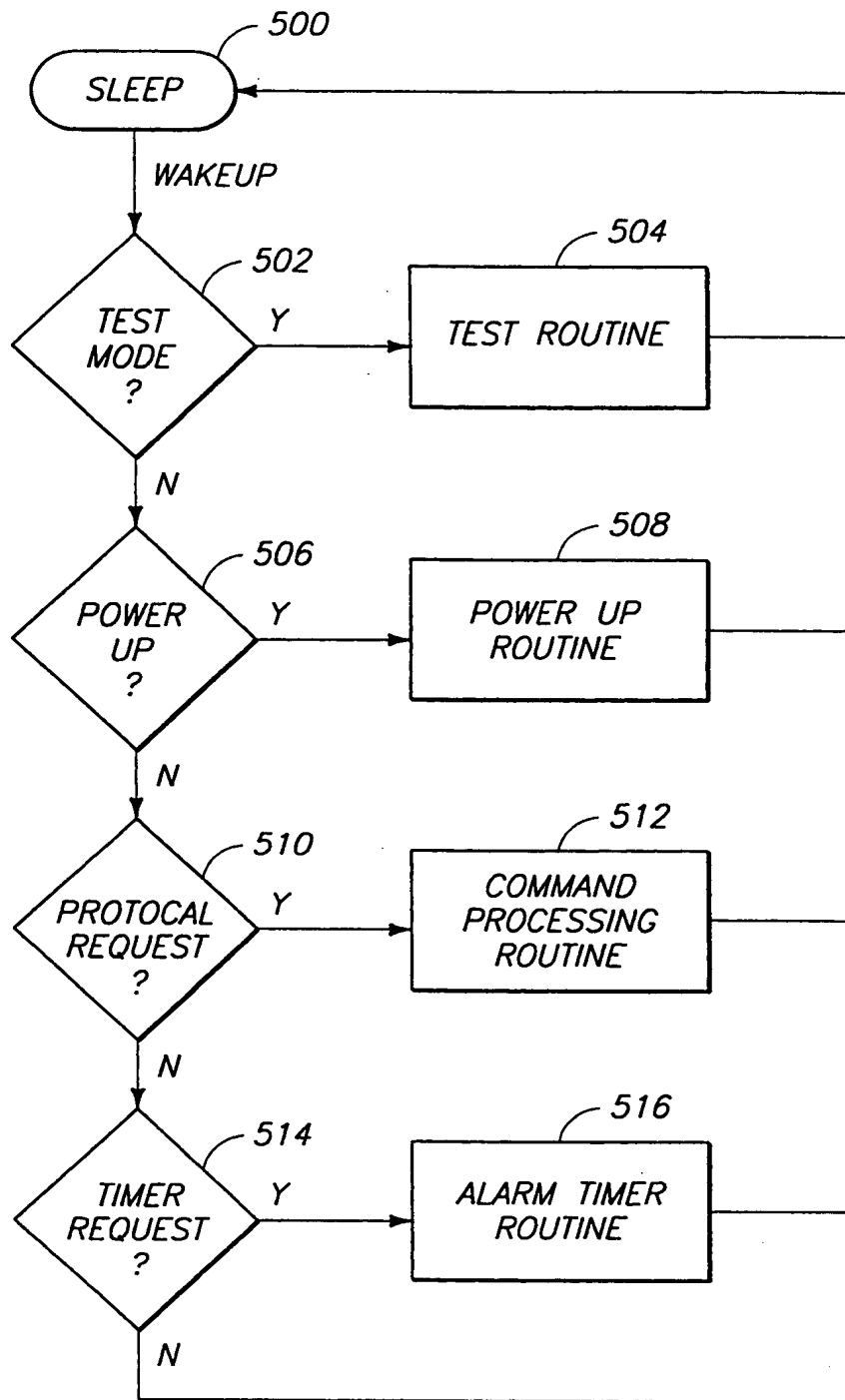
FIG. 53

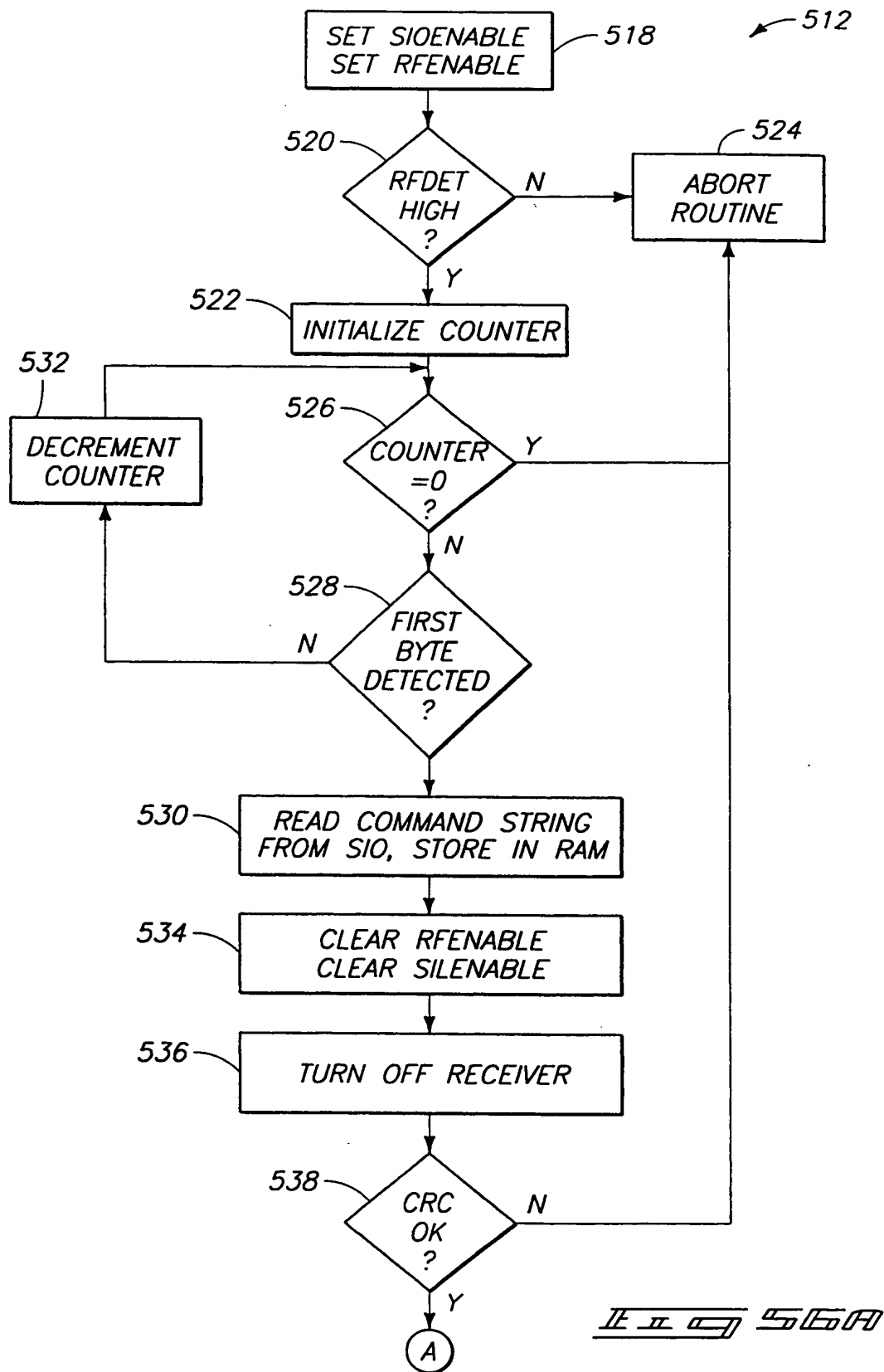
FIG. 52

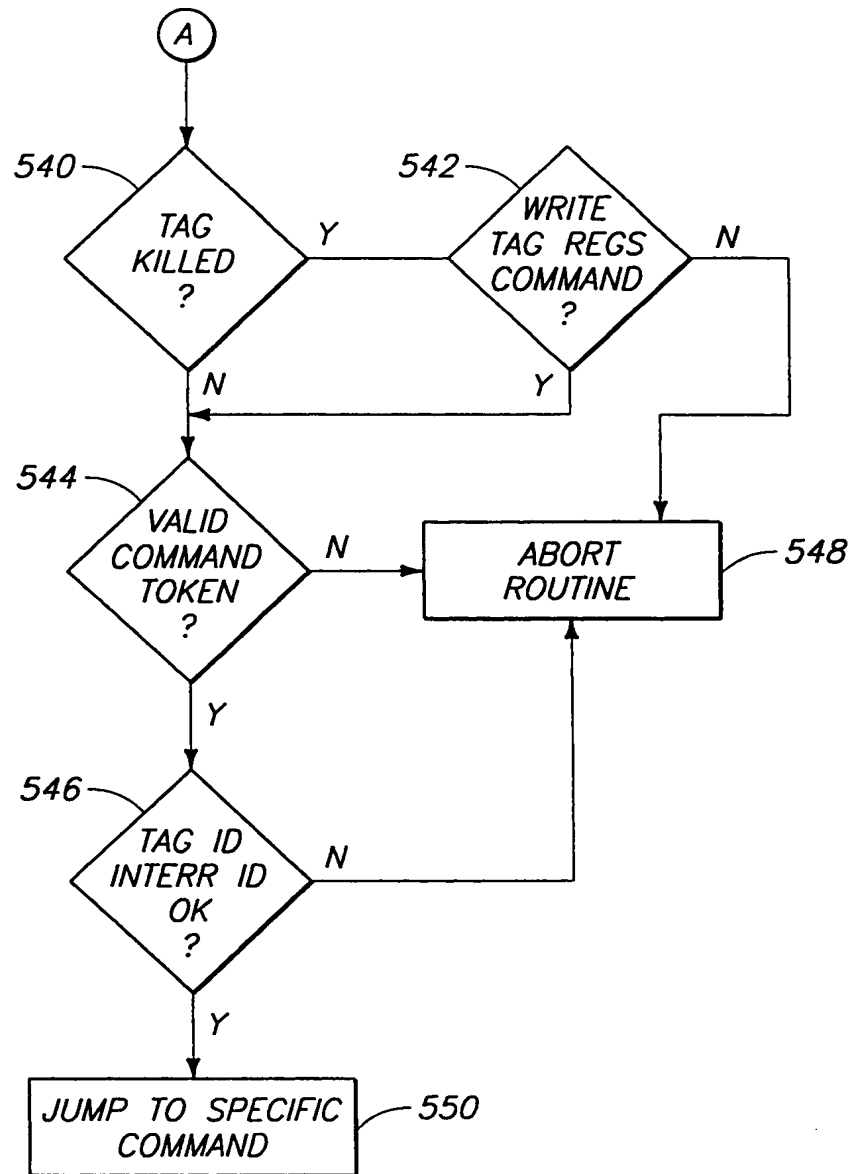
POWER SOURCE

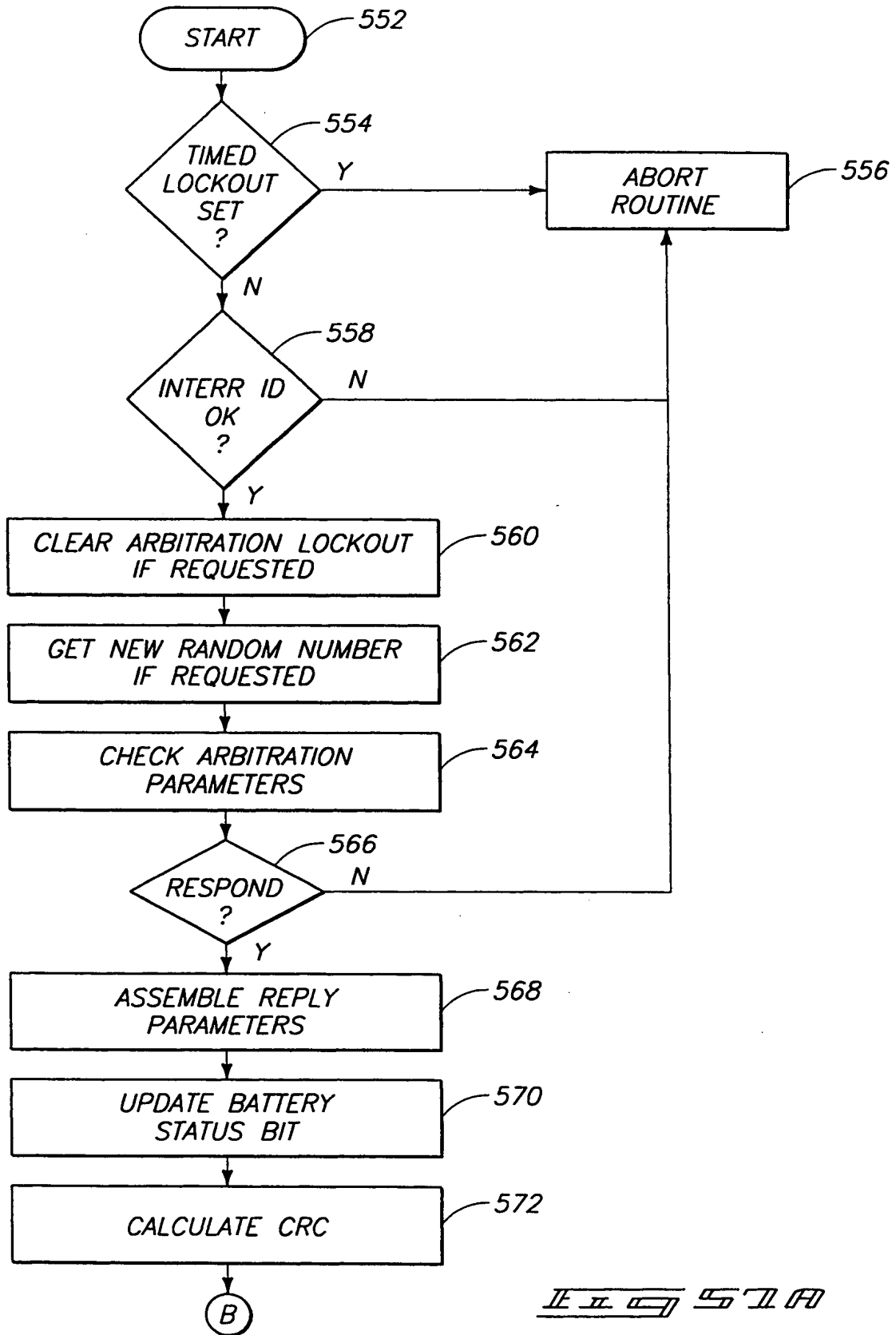


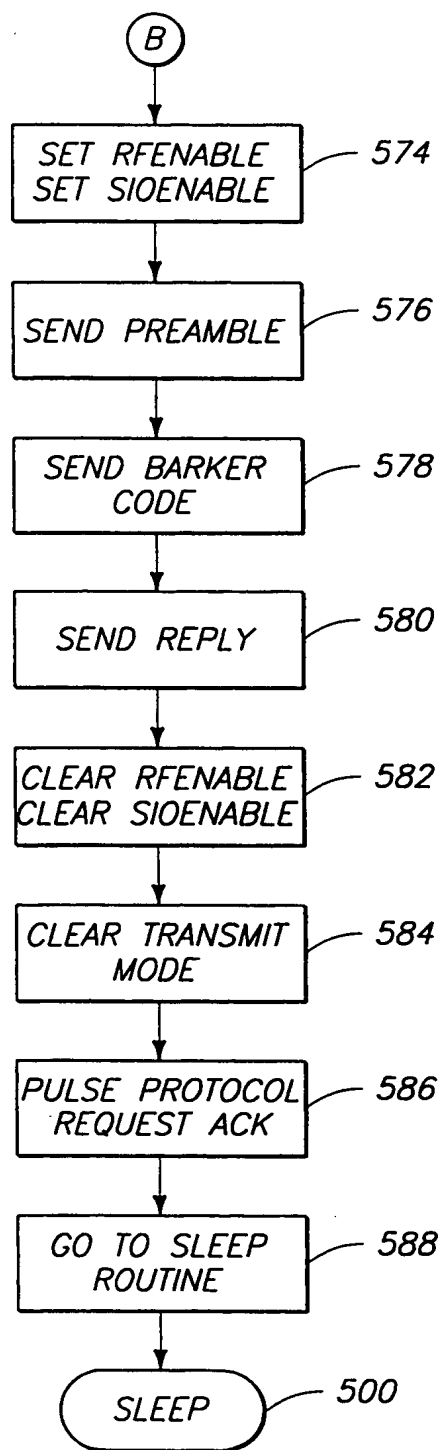
IEEE 504



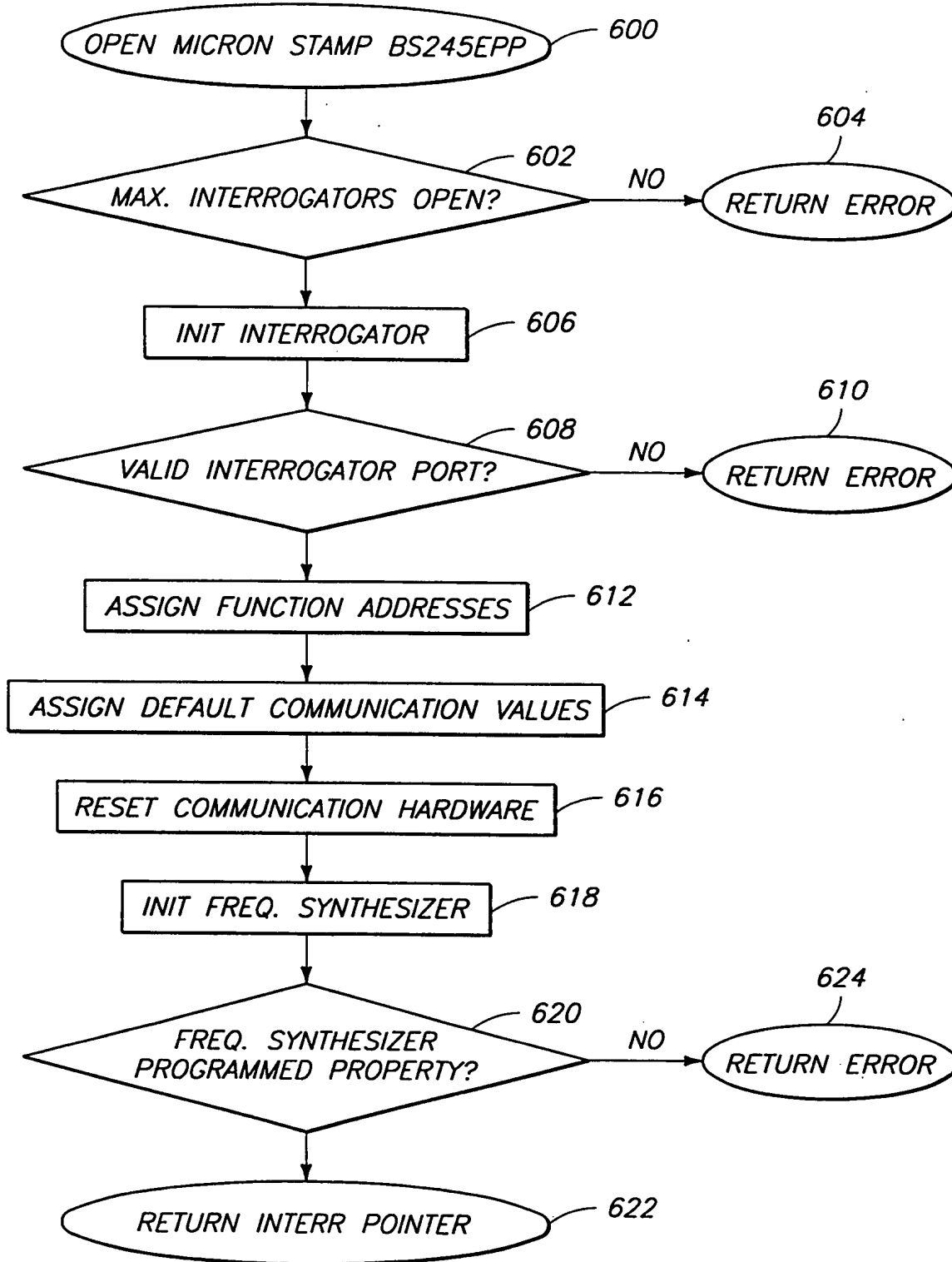


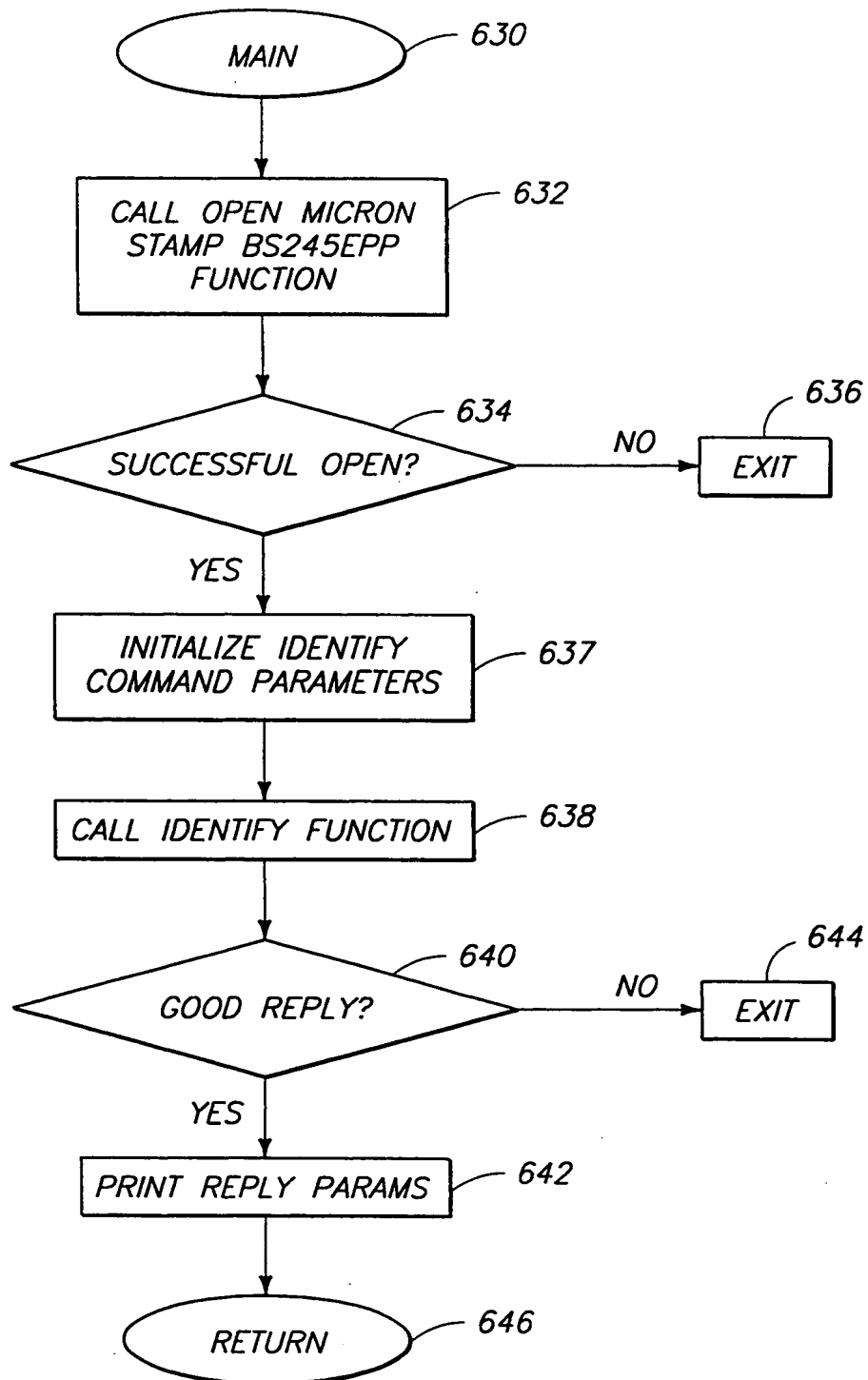
IEEE 561B

IEEE 510









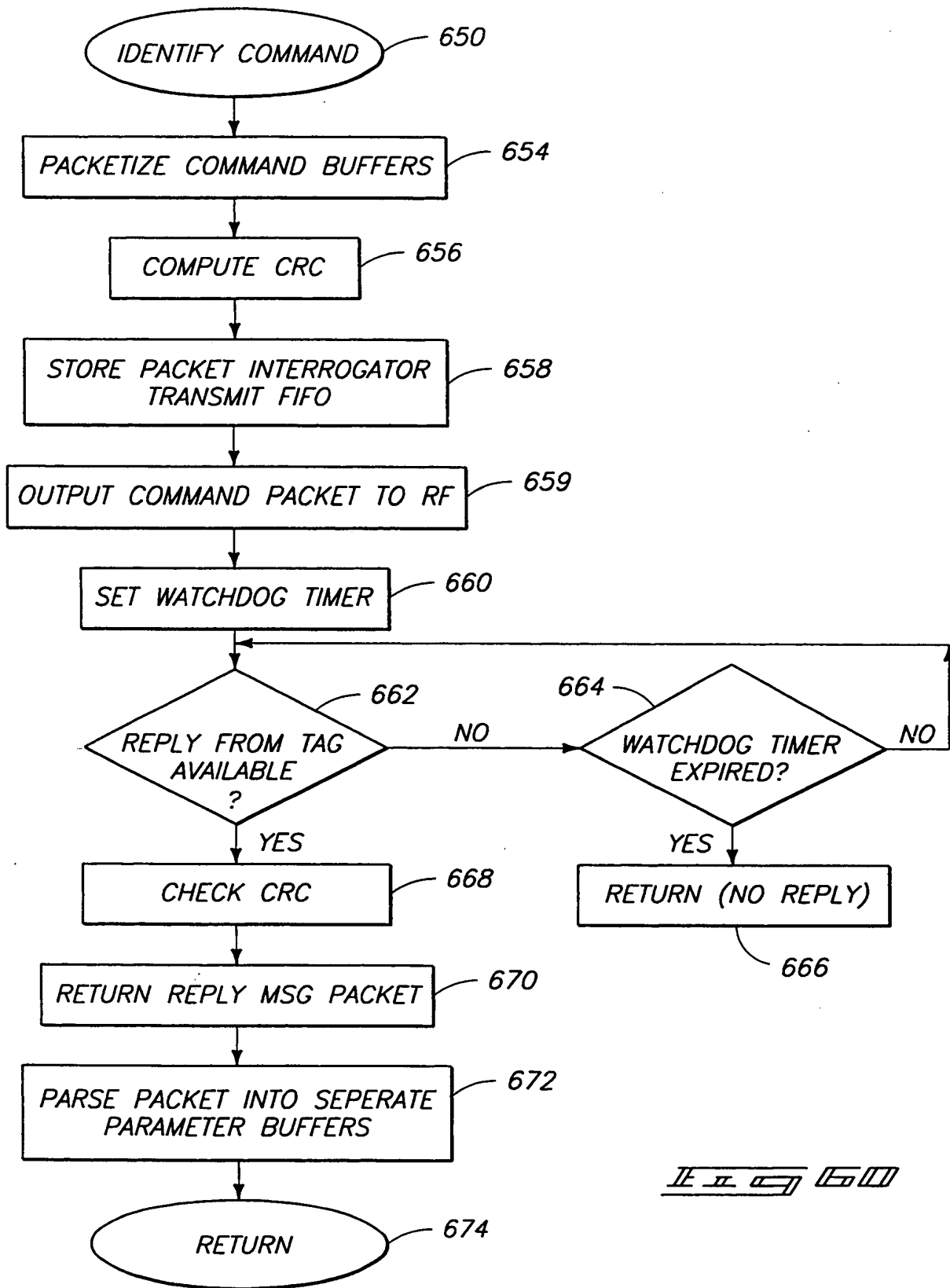


FIG. 1

700

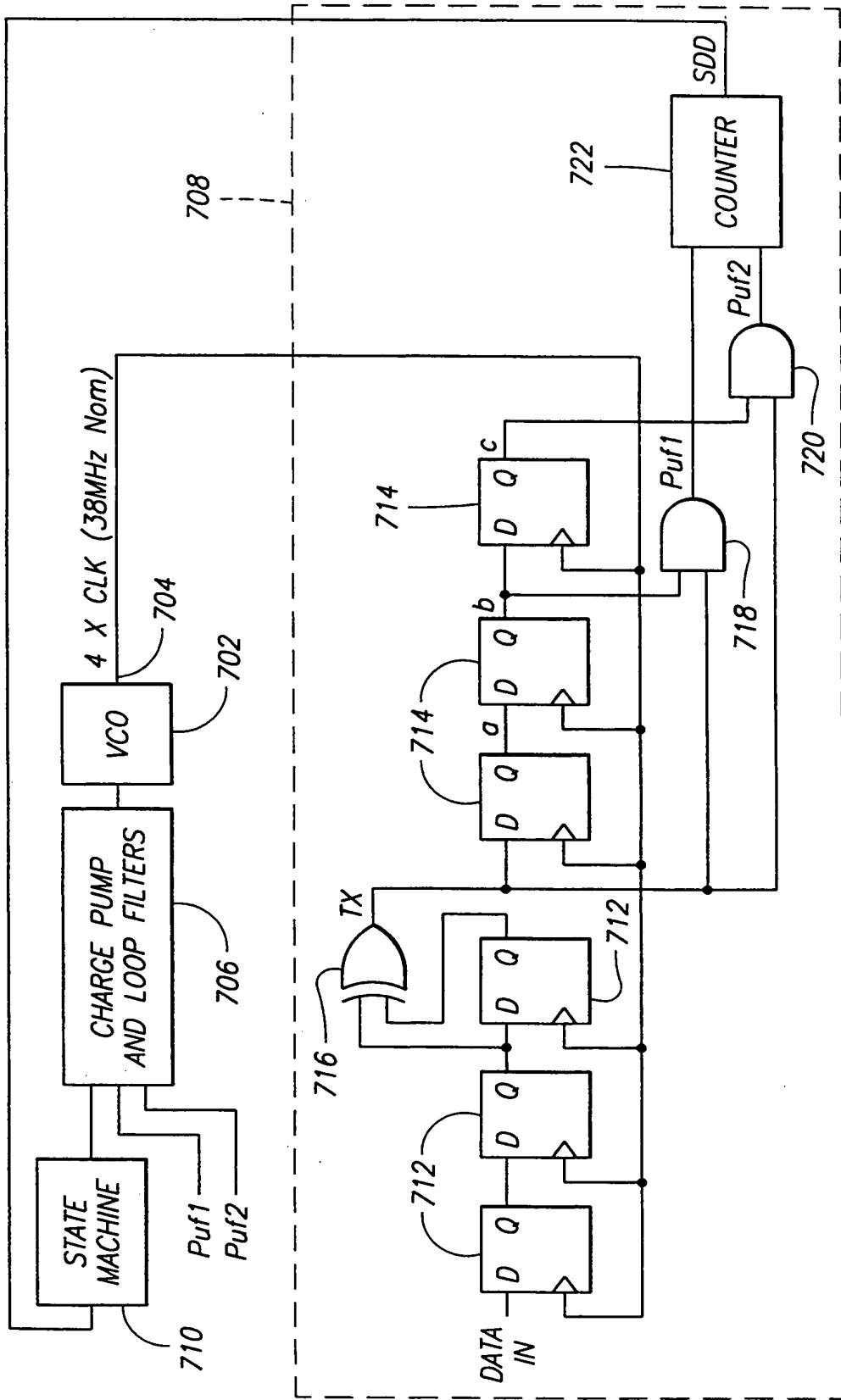
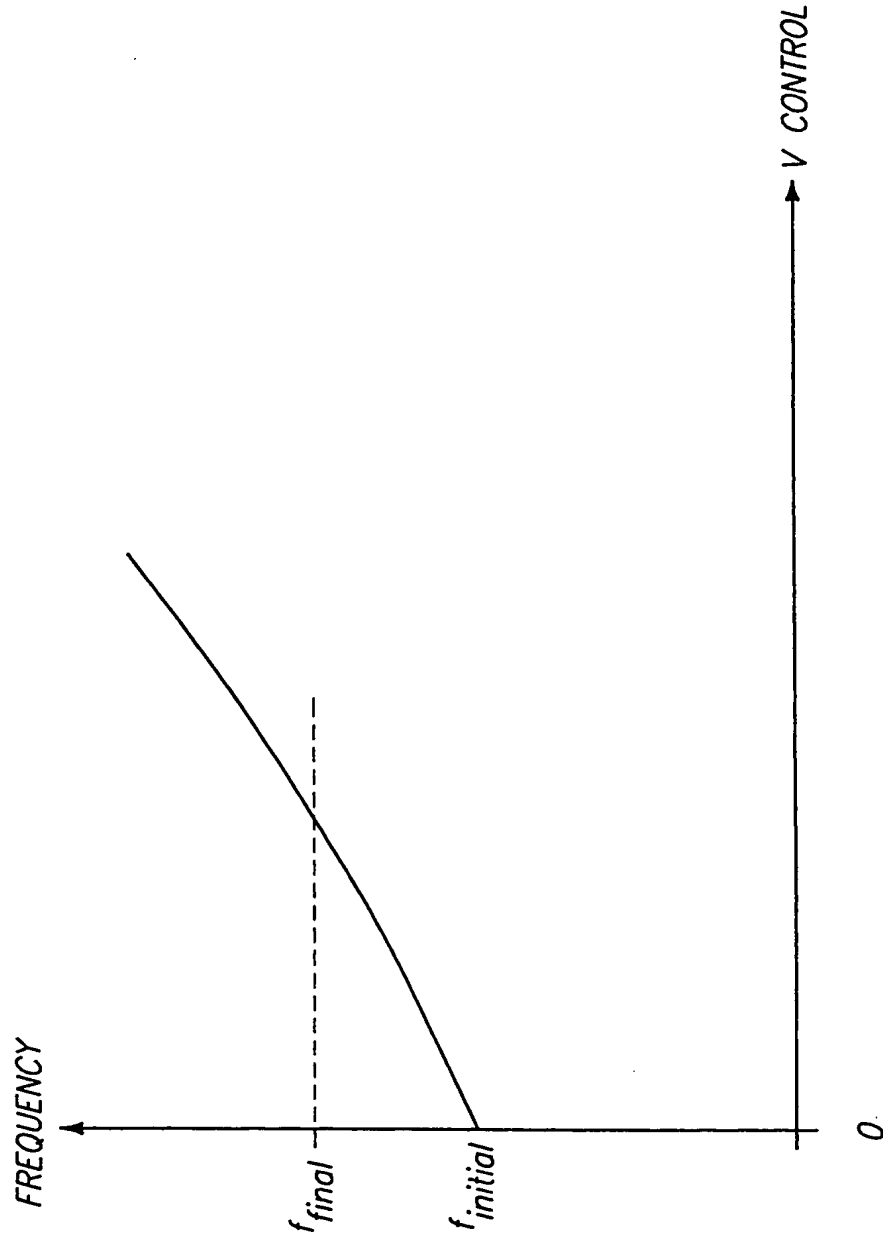


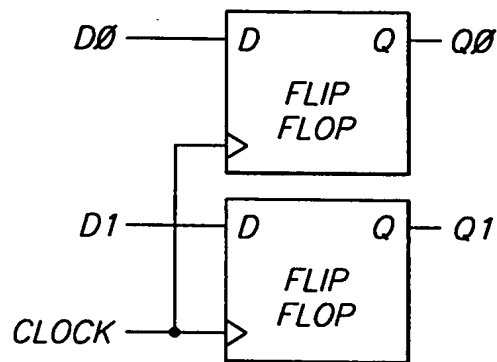
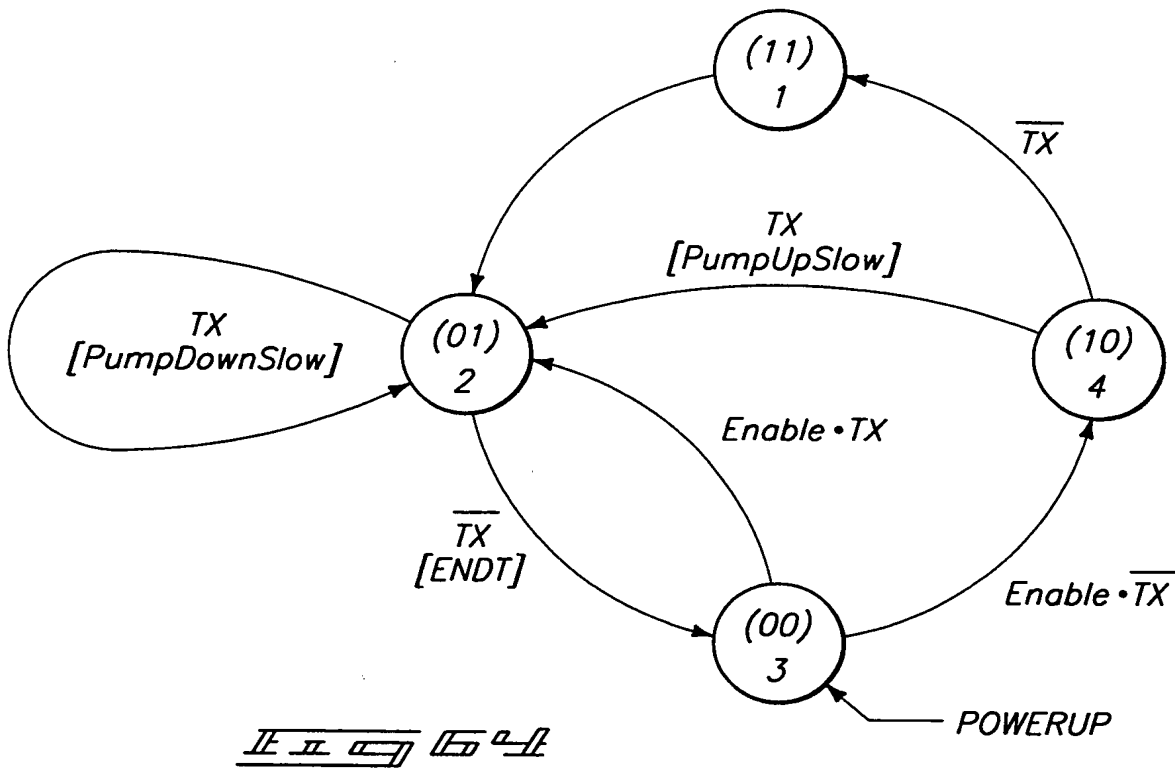
FIG. 2

FIGURE 1



MI40-030





098206-0304

TABLE 10-10

MI40-030

| ENABLE | PRESENT STATE |    |    |  | NEXT STATE |    |
|--------|---------------|----|----|--|------------|----|
|        | TX            | Q1 | Q0 |  | D1         | D0 |
| 0      | 0             | 0  | 0  |  | 0          | 0  |
| 0      | 1             | 0  | 0  |  | 0          | 0  |
| 1      | 0             | 0  | 0  |  | 1          | 0  |
| 1      | 1             | 0  | 0  |  | 0          | 1  |
| X      | 0             | 0  | 1  |  | 0          | 0  |
| X      | 1             | 0  | 1  |  | 0          | 1  |
| X      | X             | 1  | 1  |  | 0          | 1  |
| X      | 0             | 1  | 0  |  | 1          | 1  |
| X      | 1             | 1  | 0  |  | 0          | 1  |

TABLE 10-10

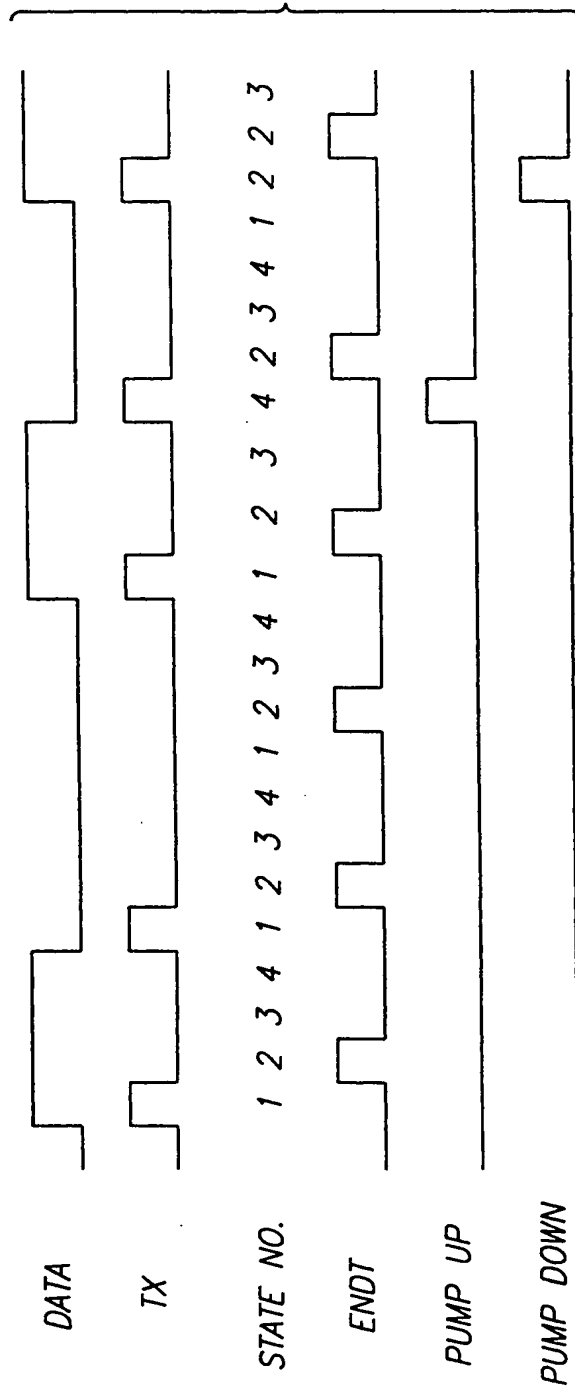






1. The first step is to identify the problem. This involves understanding the current situation and the goals that need to be achieved.

CODED "E902260"



II II II II

FORM 302-00

| NAME        | CURRENT ( $\mu A$ ) | $\Delta V$ (mV) | $\Delta V/V$ CONTROL(NOM) X 100 |
|-------------|---------------------|-----------------|---------------------------------|
| COARSE      | 40                  | 160             | 13.3%                           |
| MEDIUM      | 10                  | 40              | 3.3                             |
| MEDIUM FINE | 1                   | 2.6             | 0.22                            |
| FINE        | 0.1                 | 0.26            | 0.022                           |

REF 72

TOP SECRET

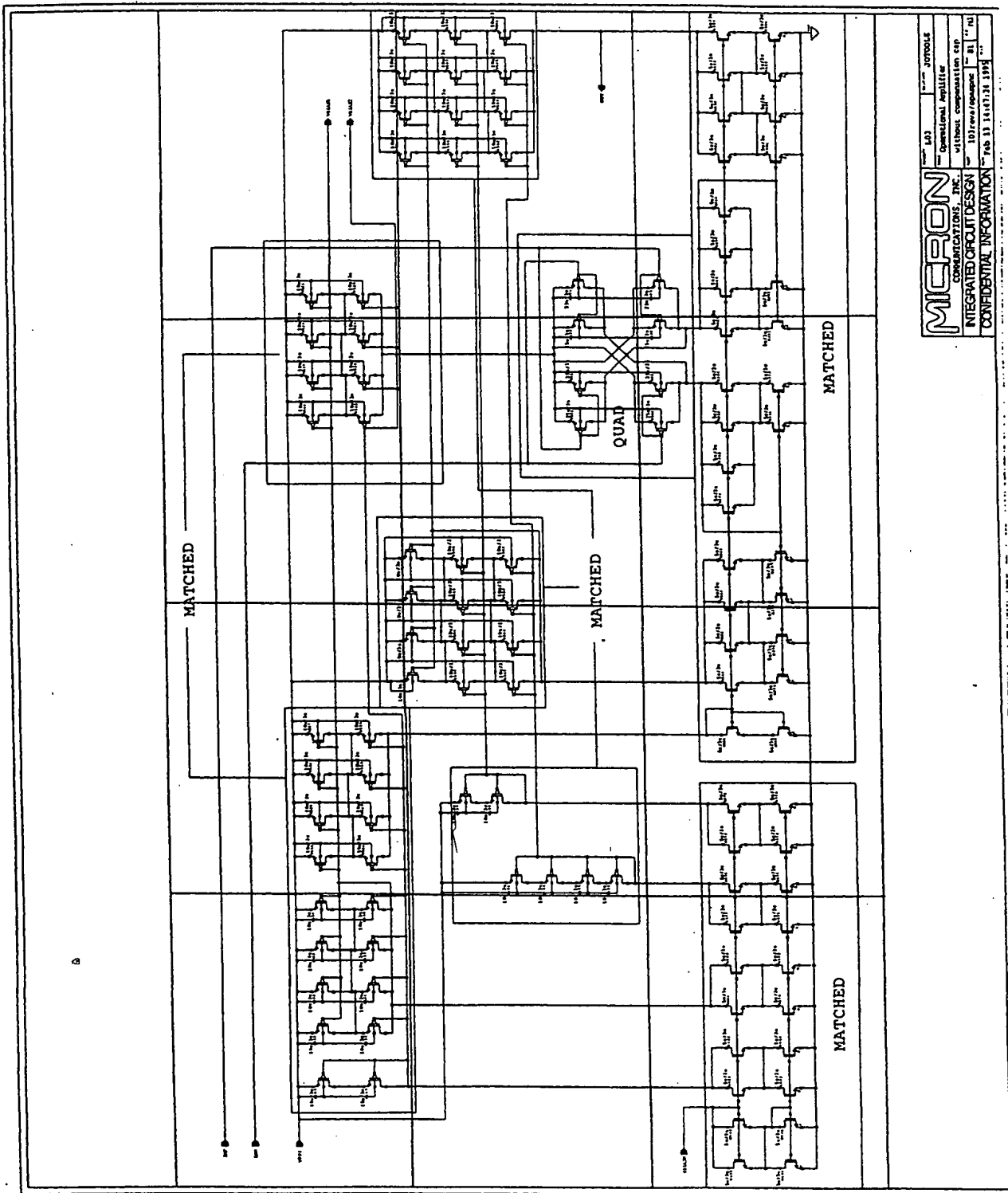


FIG. 9.0501

|                           |  |                          |      |
|---------------------------|--|--------------------------|------|
| <b>MICRON</b>             |  | 4096                     | 4096 |
| CORPORATION, INC.         |  | Operational Amplifier    |      |
| INTEGRATED CIRCUIT DESIGN |  | without compensation cap |      |
| CONFIDENTIAL INFORMATION  |  | 101reels/opcode          | 21   |
|                           |  | Feb 13 14:07:24 1975     | 12   |

code entered

|        |        |        |        |        |
|--------|--------|--------|--------|--------|
| 9.06AA | 9.06AB | 9.06AC | 9.06AD | 9.06AE |
| 9.06BA | 9.06BB | 9.06BC | 9.06BD | 9.06BE |
| 9.06CA | 9.06CB | 9.06CC | 9.06CD |        |
| 9.06DA | 9.06DB | 9.06DC | 9.06DD |        |

II II 9.06

Fig. 9.06



|        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 9.07AA | 9.07AB | 9.07AC | 9.07AD | 9.07AE | 9.07AF | 9.07AG | 9.07AH | 9.07AI |
| 9.07BA | 9.07BB | 9.07BC | 9.07BD | 9.07BE | 9.07BF | 9.07BG | 9.07BH | 9.07BI |
| 9.07CA | 9.07CB | 9.07CC | 9.07CD | 9.07CE | 9.07CF | 9.07CG | 9.07CH |        |
| 9.07DA | 9.07DB | 9.07DC | 9.07DD | 9.07DE | 9.07DF | 9.07DG |        |        |
| 9.07EA | 9.07EB | 9.07EC | 9.07ED | 9.07EE | 9.07EF | 9.07EG |        |        |



FIG. 9.07

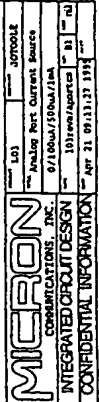
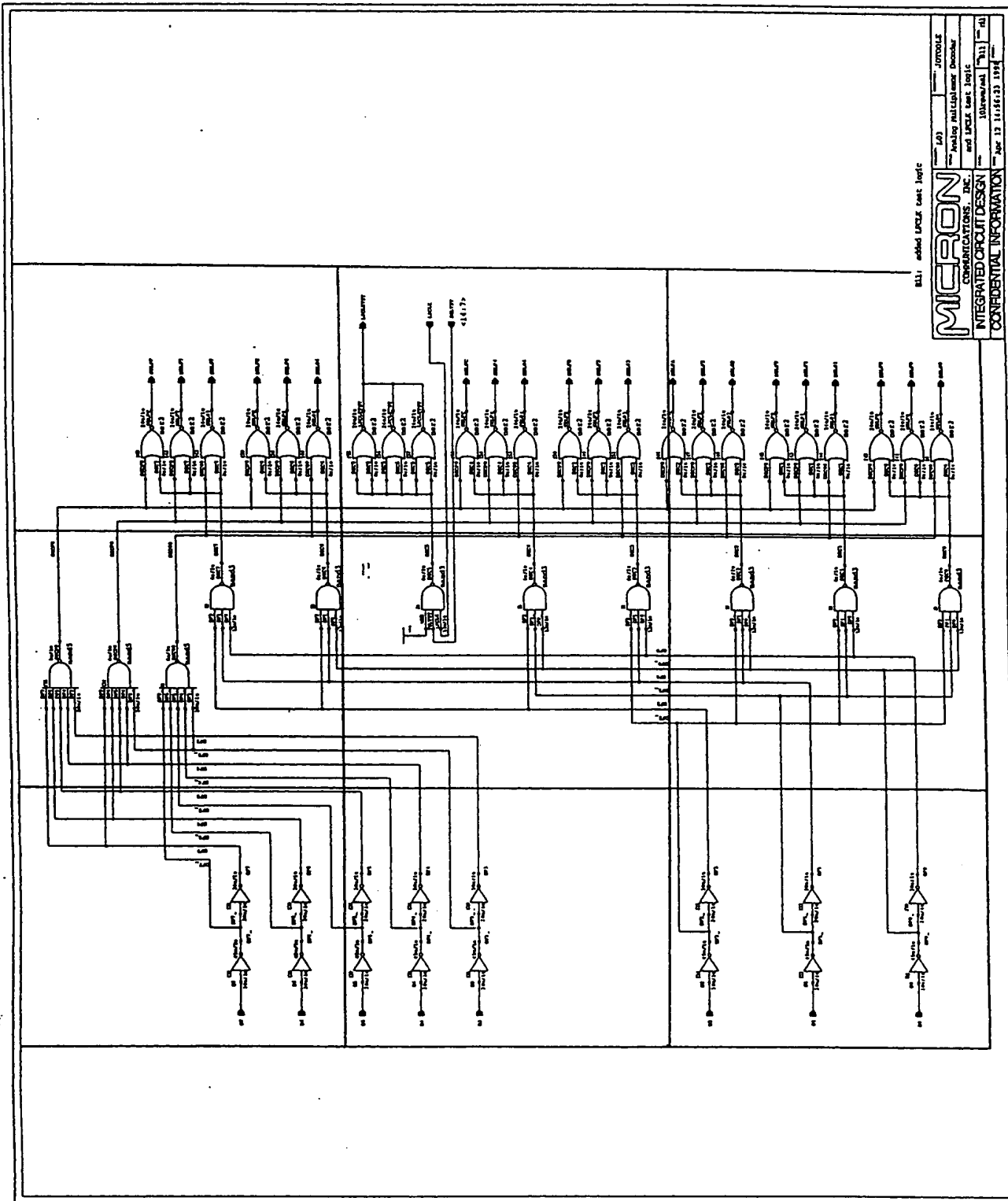


TABLE 9.08

|        |        |        |
|--------|--------|--------|
| 9.08AA | 9.08AB | 9.08AC |
| 9.08BA | 9.08BB | 9.08BC |
| 9.08CA | 9.08CB | 9.08CC |

TABLE 9.08

FIGURE 9.08



811, added LAD test logic

|   |         |
|---|---------|
| <b>MICRON</b>                                 |         |
| COMMUNICATIONS, INC.                          |         |
| INTEGRATED CIRCUIT DESIGN                     |         |
| CONFIDENTIAL INFORMATION                      |         |
| LAD   | JOTITLE |
| Analog Multiplexer Decoder and LAD test logic |         |
| 10/26/64                                      | 111     |
| Apr 13 11:46:33 1964                          |         |

Fig. 9.08

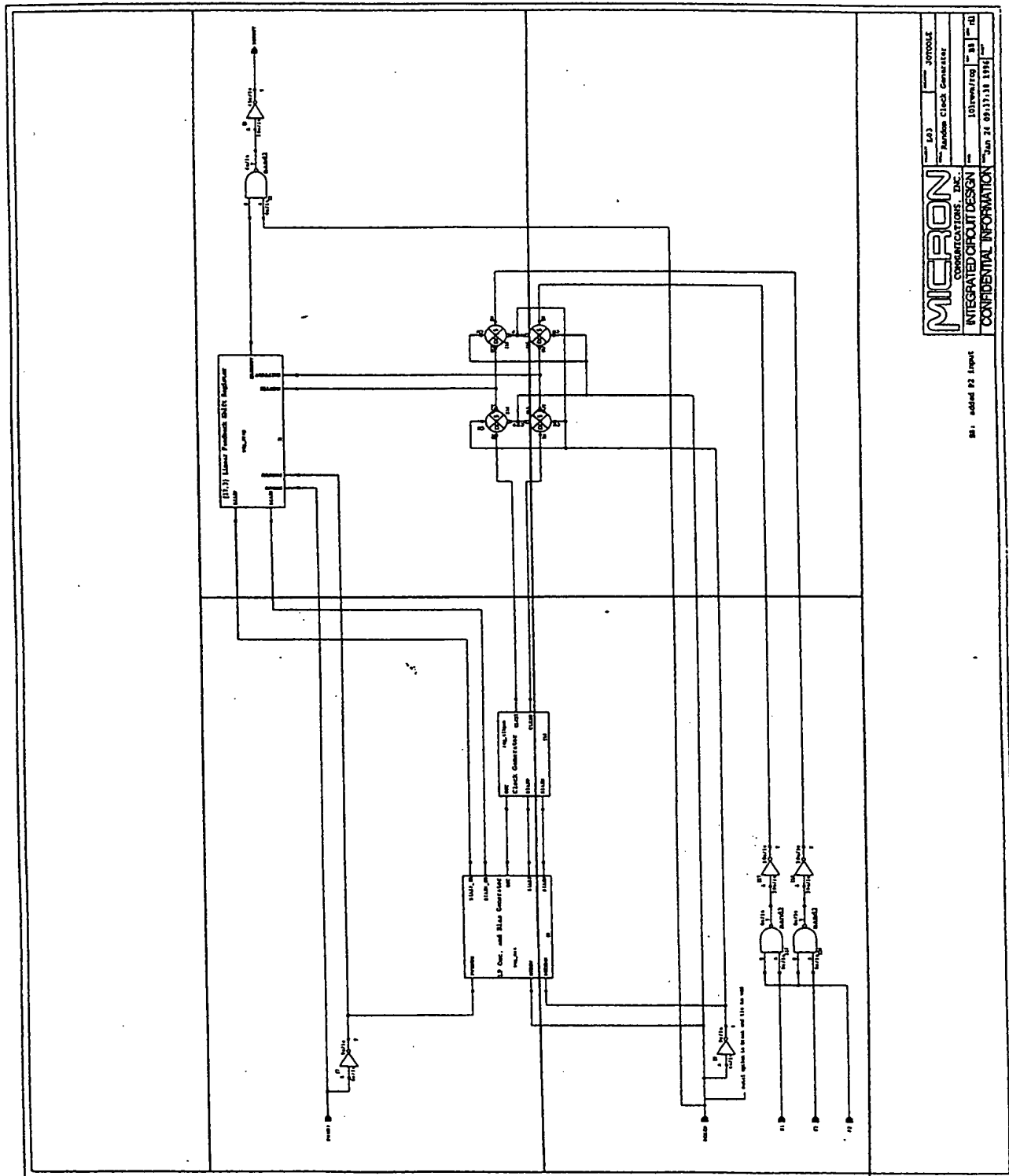
TABLE 2-300

|        |        |
|--------|--------|
| 9.09AA | 9.09AB |
| 9.09BA | 9.09BB |

TABLE 2-300

403220 23022300

Fig. 9.09



|                           |  |                        |
|---------------------------|--|------------------------|
| MICRON                    |  | JO0006                 |
| COMMUNICATIONS, INC.      |  | Random Clock Generator |
| INTEGRATED CIRCUIT DESIGN |  | 1017mm/eq              |
| CONFIDENTIAL INFORMATION  |  | Rev 2.6 09-17-18 1995  |

881 added P2 Input

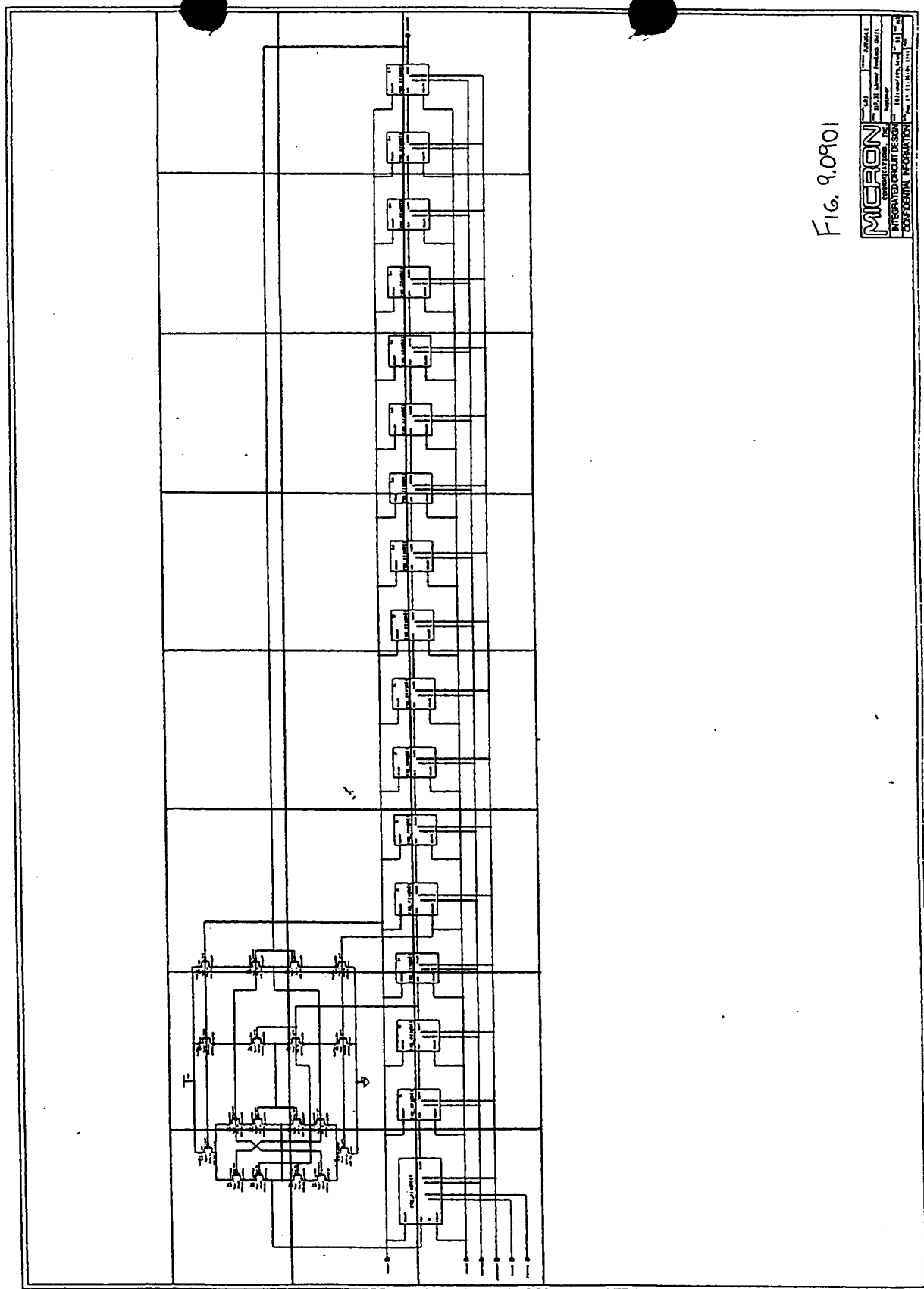
9.0901AA 9.0901AB 9.0901AC 9.0901AD 9.0901AE 9.0901AF 9.0901AG 9.0901AH

MI40-030

|          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|
| 9.0901AA | 9.0901AB | 9.0901AC | 9.0901AD | 9.0901AE | 9.0901AF | 9.0901AG | 9.0901AH |
| 9.0901BA | 9.0901BB | 9.0901BC | 9.0901BD | 9.0901BE | 9.0901BF | 9.0901BG | 9.0901BH |
| 9.0901CA | 9.0901CB | 9.0901CC | 9.0901CD | 9.0901CE | 9.0901CF | 9.0901CG | 9.0901CH |

9.0901DA 9.0901DB 9.0901DC 9.0901DD 9.0901DE 9.0901DF 9.0901DG 9.0901DH

FOUO 000000



FORM 902360

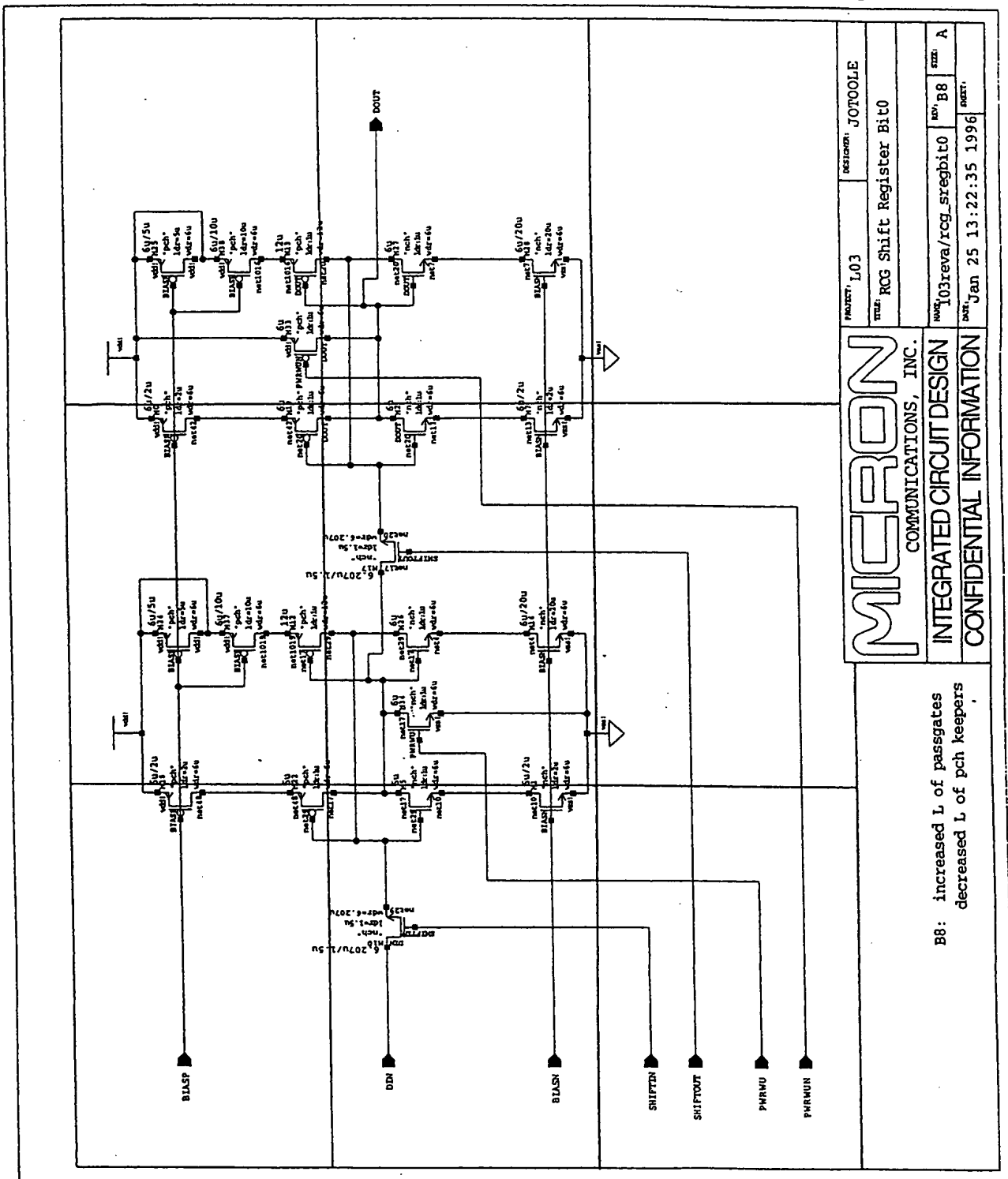
MI40-030

|            |            |            |
|------------|------------|------------|
| 9.090101AA | 9.090101AB | 9.090101AC |
| 9.090101BA | 9.090101BB | 9.090101BC |
| 9.090101CA | 9.090101CB | 9.090101CC |

EX 9.090101



FIG. 9.090101



**MICRON**  
COMMUNICATIONS, INC.

B8: increased L of passgates  
decreased L of pch keepers

INTEGRATED CIRCUIT DESIGN  
CONFIDENTIAL INFORMATION

FIG. 9.090101